

CANAL IRRIGATION AND AGRARIAN SOCIAL STRUCTURE  
A Comparative Study of Two Villages in Tamil Nadu

*A Thesis Submitted*

in Partial Fulfilment of the Requirements  
for the Degree of

DOCTOR OF PHILOSOPHY

*by*

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*to the*

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES  
INDIAN INSTITUTE OF TECHNOLOGY KANPUR

AUGUST, 1986

To

My Parents



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CERTIFICATE

This is to certify that the thesis "Canal Irrigation and Agrarian Social Structure: A Comparative Study of two Villages in Tamil Nadu", submitted by Mr. M. Thavamani, in partial fulfilment for the degree of Doctor of Philosophy to the Indian Institute of Technology, Kanpur, is a record of bonafide research work carried out by him under my supervision and guidance. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

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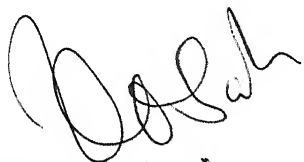
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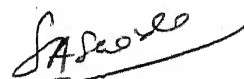
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## Synopsis

"Canal Irrigation And Agrarian Social Structure:  
A Comparative Study of Two Villages in Tamil Nadu"  
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the Requirements for the Degree of Doctor of  
philosophy by M. Thavamani to the Department of  
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There are two major concerns in irrigation studies of sociological nature; one a theoretical issue of correlation between irrigated agriculture and certain restricted patterns of social structure; and two, a practical issue of social organisation of irrigation, its links with other elements of social structure and their impact on productivity and equity in agriculture.

The present work is based on the study of two villages of Madurai district of Tamil Nadu in India. Both are, numerically as well as economically, dominated by a peasant caste - the Kallar. In one (Doubloor), canal irrigation arrived in the year 1900, for two major crops, and in the other (Singloor), it was introduced in 1960, nearly coinciding with the launching of the Green Revolution, only for one (monsoon) crop. Both are tail - end villages in their respective canal systems. The fieldwork in the two villages was carried out for ten months during 1982-83.

The main interrelated objectives of the study are the following:

1. To investigate the relation between differential in irrigation conditions and the degree of corporateness of local structure,

2. To explore the relation between irrigation differential and pattern of socio-economic development.

In order to carry out the above exploratory objectives, it is necessary to analyse the following:

3. Irrigation organisation at local level and its links with wider bureaucratic - political system,

4. Changes in production condition and production relations,

and 5. Linkages between irrigation, production relations and socio-political system at local level.

The thesis is divided into eight chapters. (1) Introduction, (2) A History and Social Organisation of Kallars, (3) Methodology, (4) An Introduction to Agricultural Change, (5) Social Organisation of Irrigation, (6) Production Conditions and Agrarian Social Structure, (7) Education and Political Structure, and, finally, (8) Conclusion.

In the first chapter, the relevant sociological literature on 'irrigated communities' is reviewed to cull out theoretical and empirical issues that need further investigation.

Most of the studies on agrarian social structure in Tamil Nadu have been carried out in Brahmin-dominated villages. For comparative purposes, we have selected villages which are dominated by a peasant caste - the Kallar. Therefore a brief history and social organisation of Kallars has been presented in Chapter II. It deals with their changing social, economic and political conditions during the colonial rule and presents an outline of their kinship structure.

In the third chapter, history, infra-structure, population and caste, and land and irrigation are discussed for both Singloor and Doubloor. After the method of data collection and analysis, the selection procedure of sample households for detailed case studies is outlined.

Chapter IV deals with changes in cropping pattern, agricultural practices, and labour organisation with the introduction of canal irrigation and new technologies of the Green Revolution package in the two villages.

In chapter V different sources of irrigation and their relative importance is discussed for the state of Tamil Nadu, Madurai district and the two villages Singloor and Doubloor. It includes problems of irrigation and irrigation organisations at the local level. Finally the nature of co-operation and conflict is analysed through case study method.



In chapter VI, land distribution and distribution of various other means of production among the landless, poor peasants, middle peasants, rich peasants, and big landowners in analysed in detail. It is followed by a comparative analysis of techniques of production, nature of agricultural inputs and productivity, and the systems of labour hiring in the two villages. Tenancy patterns and emerging trends are discussed in detail, followed by an analysis of indebtedness, mortgaging and sale of land. The chapter is concluded with a comparison of agrarian social structures in Singloor and Doubloor.

Chapter VII brings out interesting differences between the two villages in terms of patterns of education and non-agricultural occupations. Their links with political and kinship structures are then analysed. Conclusions are summed up in chapter VIII.

The main empirical findings of the present study are the following:

Singloor has a far more egalitarian distribution of land ownership in contrast with Doubloor. The distribution of various instruments of production is also relatively more egalitarian than Doubloor. Even in irrigation, most of Singloor households have far greater control in contrast to Doubloor. Singloor is dominated by self-cultivating middle

peasants while Doubloor is, economically as well as politically, dominated by big landowners who operate as capitalist farmers. 55 per cent of Doubloor households are landless and 25 per cent are tenants whereas the percentages for Singloor are 27 and 3 respectively. 69 per cent of Singloor households have at least one literate member, whereas this figure is 39 per cent for Doubloor; following the more even distribution of education in Singloor, the percentage of households with a non-agricultural occupation outside the village is significantly greater than in Doubloor, making the latter more agriculture oriented. The traditional kinship ties are loosening up in the more open Singloor structure, whereas these remain strong in Doubloor. On the other hand, the traditional egalitarian and democratic political institution of Ur- Kattuppadu is continuing in Singloor in contrast with Doubloor which is dominated completely by six big landowners, knit together by close kinship ties.

On the basis of the above findings we have concluded that:

(1) Scarcity condition of irrigation tends to initiate corporate organisation of irrigation at the local level. However a more egalitarian local structure introduces a greater degree of corporateness in various domains of social life, making a separate irrigation organisation redundant.

On the other hand, a sharply inegalitarian social structure prevents integration at all levels and even the existence of an irrigation organisation fails to achieve its objectives at the local level.

(2) Total dependence on canal irrigation imposes a mono-crop culture, which when combined with an inegalitarian social structure dominated by big landowners, absorbs the Green Revolution package of techniques and technologies completely, leading to typical contradictions of capitalist agriculture, with concentration of capital on the one hand and increasing pauperisation on the other.

A variety of sources of irrigation, including canal, facilitates a multi-crop culture, which when combined with a middle peasant dominated relatively egalitarian social structure, leads to combining traditional and modern techniques and technologies of non-capital intensive varieties, thus further strengthening the egalitarian and democratic tradition, leading to a more comprehensive and progressive peasant model of development.

## CHAPTER - I

### INTRODUCTION

Agrarian communities all over the world have always recognised the significance of irrigation. However, scholarly interest in the social organisation of irrigation is of relatively recent origin. A major impetus to systematic study of irrigation organisation and its relation with social structure was received with Wittfogel's "Oriental Despotism", published in 1957. Furthermore, concern with increase in agricultural production in the developing countries by the introduction of "new technologies" added to the importance of irrigation studies.

In India, the Green Revolution and its consequences unleashed a large number of studies of Agrarian Social structure and its transformation. Initially irrigation, though recognised as a key element in the package of new technologies on which success of Green Revolution depended, remained a neutral 'technological input' to be studied and analysed by engineers or a 'factor of production' figuring in the calculations of economists. The uneven development of Green Revolution, and the tension and conflicts that followed in its wake, forced a shift from the question of productivity to the politically crucial question of equity, thus drawing the attention of sociologists and social anthropologists. However, social

organisation of irrigation continued to be neglected for sometime. It is only in mid 1970s that studies on irrigation as a social institution - as a part of agrarian social structure - began. According to Wade (1979: 3-4):

It is estimated that in India 40-50 per cent of foodgrain production comes from irrigated areas (which account for a quarter of gross cultivated area); of this irrigated area, about half is supplied by canals (rather than wells or ponds). The question of how these canals are administered has been given virtually no attention by social scientists. Even anthropologists working in canal irrigated villages have ignored the question of how the irrigation is organised - though water may be the most vital agricultural input, and its allocation a source of frequent conflicts (Beteille 1965, Epstein 1962, Orenstein 1965). The Hunts, after a thorough search of the literature to find material on canal irrigation and local social structure world-wide, comment that 'South Asia still presents a serious problem. India is the country with the second highest total of irrigated hectares in the world and the country for which good community - level data are hardest to find' (1976: 406).

The gap in sociological studies of irrigation - embedded in agrarian social structure - becomes all the more glaring when one notes the enormous increase in canal irrigation. 'India has for the next five years, undertaken to build 8 million hectares of medium and major canal irrigation. It is as much as was achieved in one hundred years under the British empire' (Hart, 1978: A-133). The present study is a part of the new trend to bridge the aforementioned gap.

First section of this chapter begins with a brief evaluation of the problem of underutilization of canal irrigation in India. In section 1.2, literature on relation between irrigation and social structure is reviewed to cull out theoretical and empirical issues that need further investigation. Objectives of the present study are presented in section 1.3, followed by the plan of the thesis in the last section.

### 1.1 Underutilization of Canal Irrigation

The success of the package of new technologies under the Green Revolution hinged upon irrigation. Therefore, realization of underutilization of canal irrigation on a vast scale was a matter of concern for scholars and the government alike. According to Wade, 'partly because of engineering inefficiency, partly because of unreliability in canal supplies, and partly because of poor on-farm use of water, average crop yields in canal - irrigated agriculture tend to be far below what one might reasonably expect' (1975: 302). The engineering inefficiency has been estimated to result in water losses in transit of the order of 70 to 80 per cent. Reliability in canal supplies is a complex issue. As pointed out by Wade, 'there are inherent conflicts between the objectives of improving predictability of water deliveries (in timing and amount), appropriateness of water deliveries in relation to crop needs, and the equality of water deliveries per acre' (ibid: 303). It is well known that inappropriate but predictable

water deliveries affect the productivity adversely in the case of new high yielding varieties. It is the on-farm use of water or equality of water deliveries per acre which requires the attention of sociologists and social anthropologists. It refers to the patterns of distribution of water below outlet amongst different farmers. The problem of distribution is partly technical or ecological and partly social-political.

One of the major responses of the government to these problems was the launching of Command Area Development (CAD) programme in 1974-75, involving 50 projects. The primary objective of the programme was, 'to bridge the gap between the creation of irrigation potential and its utilization and to make the best use of the available land and water resources to increase agricultural production' (Ramanujam, 1983: 10). A key element of CAD is on-farm and 'on outlet' land development, to be undertaken by the government. This programme was carried out with the aid and blessings of World Bank. 'CAD is the bank's biggest programme in India and India is the bank's biggest customer' (Wade, 1975: 307). The programme has come under severe criticism. Alternatively, initiative on the part of water users themselves to get organised and manage water distribution is increasingly being emphasized.

The problem of distribution of canal water for irrigation was brought to a focus by Thorner. He noticed a 'double service' in Sarda Canal - a superior service to the few, the

'strong' and an inferior service to the many, the 'weak'.

Throughout the Sarda system it is the general rule... that the strong, the powerful, the well-connected, the local zabardast (bullies etc.) dominate the use of irrigation water. They get water first and they tend to take as much of it as they please. Only after they are satisfied do they permit the mass of ordinary, unimportant petty cultivators (the kamzorlog) to have access to it (Thorner, 1962: 16).

This resulted in the following types of cultivation - intensive cultivation by the strong who go in for 'better seeds, fertilizer, more and better implements, engage regular servants etc.', due to the surity of water and an inefficient cultivation by the weak depending upon the 'intermittent blessings (of canal water) to be welcomed when it comes' (ibid: 16).

Orenstein speculated on certain issues related to canal irrigation and social structure in a brief communication in 1965 as a response to Wittfogel's theory of 'hydraulic society.' Primarily taking ecological factors, such as location of land in relation to canal and the level of land, into account he reported on the basis of fieldwork in Poona district that 'water theft is frequent and periodic conflict is the outcome.' While speculating on the social consequences, he stated that 'there may come about a greater tendency for society to be divided between landed and landless classes' (1965: 1531). On the other hand, an egalitarian land structure may eliminate conflict related to canal irrigation.



More recently, the problem of water distribution at the field level, and consequent conflicts, has been raised by several scholars (see, for example, Hart 1978, Wade 1979, Reidinger 1980, Chambers 1980, Pant 1984). According to Wade, although research on social relations between irrigators is necessary at the micro level, the problem of equity cannot be fully understood without a study of administrative and political linkages between the micro and the macro structures (1982). Thus the problem of productivity and equity, significantly related to underutilization of canal irrigation, cannot be left only to engineers, economists and managers and requires a sociological view as well.

## 1.2 Irrigation and Social Structure

Inspired by Wittfogel's theory of 'Hydraulic society', Hunt and Hunt conducted an exhaustive survey of anthropological literature to investigate relationship between canal irrigation and local social organisation.

Wittfogel's theory has four main elements: (a) a particular form of resource (arid land, large water source, potential for large irrigated agriculture works); (b) for pre-industrial regimes, a sociological imperative for its exploitation (massive, centrally organised and controlled labour demands); and, as a consequence of this, (c) a particular kind of system (managerial) with (d) a particular distribution of power (despotism). (Hunt and Hunt, 1976: 389-390).

Although the concept of 'Hydraulic society' was originally intended to describe social organisation at a macro level, the Hunts wanted to explore the possibilities of identifying similar features at micro level, and therefore reviewed the relevant anthropological studies. 'We intend to explore some sociocultural responses to irrigated agriculture at the local level, paying special attention to (1) the local organisation of the tasks pursuant to irrigation, (2) the linkages between the local level and higher levels of the system, and (3) the relationship between roles in the irrigation system and other roles in the local social organisation' (ibid: 390). For this purpose, they analysed 'a few high quality monographs on local irrigation system': Gray (1963) on the Sonjo of Tanganyika (now Tanzania), Leach (1961) on Pul Eliya, Ceylon (now Sri Lanka), Fernea (1970) on the El Shabana of Iraq, Glick (1970) on Medieval Valencia, Hunt and Hunt (1974) on Mexico, Geertz (1959, 1973) in Indonesia and Eyre (1955), Beardsley, Hall and Ward (1959) on Japan. The Hunts started by evaluating a major comparative investigation of the relationship between irrigation and centralization by Millon (1962) which concluded that 'centralized authority and the practice of irrigation are not necessarily related'. They found several difficulties with Millon's assumptions and analysis and ultimately concluded that evidence for or against the centralization hypothesis is inconclusive.

However, while questioning Millon's analysis of political centralization in Pul Eliya, the Hunts argued that in Pul Eliya 'irrigation is the most significant factor in social organization, in the recognition of kinship, in the formation of marriage alliances, in the distribution of political power, and in relationships with the outside world' (Hunt and Hunt, 1976: 394). Ultimately they perceived optimistic possibilities of exploring relationship between irrigation and social structure at the local level. 'Irrigation agriculture thus clearly is a resource of great structural potential; it is systematically linked with major features of the social organization, closely linked with differential power, and embedded in the local-national linkages of states. It may therefore be associated with distinct forms of social organization which require further study' (ibid: 398).

In the Indian context the above line of thinking was picked up by Robert Wade. According to him, 'the issue is important not only for our understanding of social evolution and village social organization, but also, more practically, because of the connection between the social organization of irrigation and the productivity of irrigation - and hence food and raw-material production (1979: 3). He studied 24 villages in a district of Andhra Pradesh, 'where within the same small area are villages which show a degree of corporate irrigation organisation greater than has been previously reported for

any Indian village (whether for irrigation or any other secular activity - excluding 'tribal' villages), and also villages which show no trace of this form of organization, though equally dependent on irrigation' (ibid: 4). Wade arrives at the following conclusion, in the first instance:

The overall pattern is clear: those villages where water supply was described as 'generally difficult' - which correlates strongly with tail-end location - tend to have a high level of corporate organization for irrigation and cultivation; those where water supply was described as 'never difficult' - in head-reach locations - have little. Where water supply was described as being 'sometimes difficult' there tends to be little corporate organization. This suggests it is only where water supply is seen as a frequent problem for virtually all irrigators that the response may be to organize on a village - wide basis (ibid: 14; emphasis added).

Thus it is not irrigation per se but scarcity of water supply which emerges as a crucial factor influencing the degree of corporateness in a village social structure. However, there were some exceptions. These are explained by certain features of internal political structure. For example, village 8 is an exception 'where the conflict over water within the village, on account of its general scarcity, is too strong to be contained by a collective approach' (ibid: 15; emphasis added). Similarly, 'village 4.... is another tail-end village without corporate organization. It is the native village of an MLA, which he and his family rule with an iron hand. According to small farmers, he and his family take a

disproportionately large part of the water that reaches the village and are uninterested in the welfare of the village as a whole. If they are short of water, they may send their hired labourers and a tractor up the canal to try to get more; but it is an operation they arrange and pay for. Lacking their support, other cultivators cannot establish a corporate organization (ibid: 15).

The corporate irrigation organizations that Wade discusses are commonly known as 'water user's associations'. Recently some studies of such associations have been conducted in different parts of the country (for example, for Gujarat, the land of co-operatives, see Sinha 1981 and Jayaraman 1981, and for Tamil Nadu, see Chambers 1980 and Narayana et al. 1982). However, in these studies not much attention has been paid either to the internal contradictions within the associations or to their links with the social structure. The present study attempts to look at the social organization of irrigation as a part of the total social structure of the village.

### 1.3 Objectives of the Study

The present study aims to bring out social response to canal irrigation in terms of social organization, corporateness and conflicts and the consequent changes in agrarian social structure. Simultaneously, it aims to find out the nature and types of linkages of the local structure with the wider social, political and bureaucratic system. In other words, it attempts

to show who controls the land and irrigation from within and outside the village. How does it affect the production conditions and relations? What is the nature of social stratification? And what is the consequent process of development? Thus we plan to study two-way interaction between irrigation and social structure.

Two villages of Madurai district in Tamil Nadu have been selected. Both are irrigated by the Periyar-Vaigai canal system. Village Singloor gets canal water for one crop only whereas the village Doubloor gets water for two crops.<sup>1</sup> Singloor was introduced to canal irrigation in 1960, nearly coinciding with the launching of the Green Revolution, whereas canal irrigation was brought to Doubloor as early as the year 1900. Both are dominated, numerically and economically, by a peasant caste - the Kallar. This is in contrast to the Brahmin dominated villages of Tanjore and Chingleput districts of Tamil Nadu, studied by Beteille (1965), Gough (1966) and Mencher (1978). The social stratification demonstrated in these studies is trichotomous - landlords (generally Brahmins) tenants (generally non-Brahmins) and labourers (generally Adidravidas or scheduled castes). Villages in the present study show a different pattern of caste-class relationships, thus providing new material for comparative analysis.

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1. Singloor and Doubloor are not the actual names of the villages.

A study of two villages - irrigated and non-irrigated - was carried out by Epstein in Karnataka in 1962. As a result of the irrigation differential, she found two different patterns of development.

Both villages have changed from subsistence to cash economies but the resultant economic changes were quite different. Wangala's (wet village) economy has remained wholly agricultural while Dalena's (dry village) has diversified..... which led to its closer integration into regional economy..... hinged on to the wider industrial and commercial system (1962: 314).

Therefore, with significant irrigation differentials in the two villages selected for the present study, we also started with the expectation of finding different patterns of socio-economic development.

Thus the main interrelated objectives of the present study are the following:

- (1) To investigate the relation between differential in irrigation conditions and the degree of corporateness of local social structure.
- and (2) To explore the relation between irrigation differential and pattern of socio-economic development.

In order to carry out the above exploratory objectives, it is necessary to analyse the following:

- (3) Irrigation organization at local level and its links with the wider bureaucratic-political system.

(4) Changes in production conditions and production relations.

and (5) Linkages between irrigation, production relations and socio-political system at local level.

#### 1.4 Plan of the Thesis

The thesis is divided into eight chapters. (1) Introduction, (2) A History and Social Organization of Kallars (3) Methodology, (4) An Introduction to Agricultural Change, (5) Social Organization of Irrigation, (6) Production conditions and Agrarian Social Structure, (7) Education and Political Structure, and, finally (8) Conclusion.

Most of the studies on agrarian social structure in Tamil Nadu have been carried out in Brahmin-dominated villages. For comparative purposes, we have selected villages which are dominated by a peasant caste - the Kallar. Therefore a brief history and social organisation of Kallars has been presented in Chapter II. It deals with their changing social, economic and political conditions during the colonial rule and presents an outline of their kinship structure.

The third Chapter starts by describing the physical and demographic features of Madurai district where the two villages are located. Then, history, infra-structure, population and caste, and land and irrigation are discussed for both Singloor and Doubloor. After the method of data collection and analysis, the selection procedure of sample



households for detailed case studies is outlined.

Chapter IV deals with changes in cropping pattern, agricultural practices, and labour organisation with the introduction of canal irrigation and new technologies of the Green Revolution Package in the two villages.

Chapter V starts with a general introduction to the process of irrigation. Different sources of irrigation and their relative importance is discussed for the state of Tamil Nadu, Madurai district and the two villages - Singloor and Doubloor. It includes problems of irrigation and irrigation organisations at the local level and their relation with irrigation bureaucracy and state politics. Finally the nature of co-operation and conflict is analysed through case study method.

In Chapter VI, studies on the impact of Green Revolution, with particular reference to Tamil Nadu, are reviewed first. It is followed by a description of the class structure for Singloor and Doubloor, and the distribution of means of production. Then a comparative analysis of techniques of production and the nature of agricultural inputs and productivity is presented. Tenancy patterns and emerging trends are discussed in detail, followed by an analysis of indebtedness, mortgaging and sale of land. The chapter is concluded with a comparison of agrarian social structures in Singloor and Doubloor.

Chapter VII brings out interesting differences between the two villages in terms of patterns of education and non-agricultural occupations. Their links with political and kinship structures are then analysed. Conclusions are summed up in Chapter VIII.

## CHAPTER II

### A HISTORY AND SOCIAL ORGANISATION OF KALLARS

Forces of change unleashed by the British during the colonial period destabilised the traditional social order in almost every part of India, and the post-Independence period has seen an acceleration of social change. In Tamil Nadu the non-Brahmin movement, a product of the colonial period, led to the emergence of many of the middle castes as politically significant, simultaneously altering the agrarian relations (for a case of the Nadars of Tamil Nadu see Hardgrave 1968). One of such prominent castes is the Kallar.

The Kallars had a total population of 0.8 million in Tamil Nadu in 1961 and 'might have exceeded one million (2.4% of total state population) in 1971'. They are concentrated primarily in Tanjore and Madurai districts, and constitute ten per cent and nine per cent of the population of the two districts respectively (BCWC report, 1976: 179).

During the colonial period the Kallars were described as "aboriginal tribes" and "thieves" who terrorised other castes (see, for example, Sherring 1974, Thurston 1975). However recent studies have led to a re-evaluation of their status (Gough 1963, Beteille 1965 and 1973, Blackburn 1978, Dirks 1981).

Blackburn examined the history of Kallars, re-assessed their identification as 'criminal tribes' and concluded that the image of Kallars was distorted in the British period.

In fact the Kallars were predominantly agriculturists from 1701 and occupied important roles as 'ambalakarars' (village heads) and 'kavalkarars' (policeman or watchman) in agrarian social structure (Blackburn, 1978: 38-51).

Dirks argues that, Kallars along with Maravars, are 'Ksatriyas' of South India and 'these groups have always been associated with dry and hilly landscapes and cannot accurately be placed in hierarchical comparison with groups such as Vellalas who dominate the wet-land areas' (1982: 662).

Beteille, describing Kallars as dominant peasant caste, states that 'A peasant caste may be dominant, although small in size, provided it is concentrated within a limited area of its dominance than outside. Thus the Kallars of Sripuram, although outnumbered by the Vellalas, enjoy great power in the villages in Kalla dominated areas' (1973: 281). This position of power has come about gradually. In Sripuram, 'Kallas and few other castes wrested control over village politics from Brahmins' (ibid: 260). Similarly in Kumbapettai, a Tanjore village studied by Gough, "The Kallar paddy merchants' family in particular have become powerful non-Brahmin leaders" (1963: 101). The changing power balance is summed up by Beteille: 'In certain parts of Tanjore district where the Kallas are decisively dominant, rival candidates for political office often belong to different lineages of the same sub-caste' (1973: 266). Similar situation obtains in Madurai district also.

In this chapter a brief account of social and political history of Kallars is presented in section 2.1. Section 2.2 gives an account of their social organisation.

## 2.1 Social and Political History of Kallars

Without getting into the controversy about the origins of Kallars i.e., whether they were migrants or the original settlers (see Blackburn 1978, Nattar 1923, Thevar 1976), we shall present a brief history of their relatively recent past.

From the early sixteenth to the early eighteenth century, under the Madurai Nayaks, the Kallars performed various 'police services'. They performed kaval (watch or protection) duties<sup>1</sup> in exchange for certain privileges, rendered taxes irregularly, and retained their judicial, political and military autonomy. Various historical accounts portray them as militant defenders of their autonomy.<sup>2</sup> Breakdown of the Nayaks' rule in 1730s, led to anarchic conditions in the countryside, making the local poligars, assisted by Kallars, independent and powerful.

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1. Thurston quotes the Police Administration report 1896, which says, 'Many of the Kallars are the kavalgars of the villages under the kaval system. Under that system the kavalgars receive fees, and in some cases rent free land for undertaking to protect the property of the villagers against that or to restore an equivalent in value for anything lost' (Thurston, 1975: 65).
  2. According to one account 'The Kallars are the Masters of fields, towns and villages.....' (Quoted in Blackburn 1978: 41).

The coming of the British brought about an erosion of Kaval rights, and autonomy that accompanied those rights, of the Kallars who, in turn, retaliated. Kallars, described by the British as 'rude warriors, habituated to arms and independence', 'wild collerie', 'savage tribes' were massacred on a large scale.<sup>3</sup> The ordinary Kallars, described by Blackburn as 'a semi-agricultural, semi-warrior group' lived on marginal land and 'led a life which was precariously responsive to changes in the material environment'. (Blackburn, 1978: 44). These impoverished peasants reacted to the increasing economic hardships in the late eighteenth century with desperate outbursts of violence. Such behaviour, and later on the institution of tuppukuli<sup>4</sup>, formed the basis of the Kallar caste receiving special attention of the colonial government in the early twentieth century under the Criminal Tribes Act.

According to Stuart, "In Trichinopoly town (Trichi), householders are obliged to keep a member of the Kallan caste in their service as a protection against the depredations of thieves, and any refusal to give into this custom invariably

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3. For some accounts of such encounters leading to massacres see Blackburn 1978: 42-43.

4. 'Tuppukuli' is the 'clue-hire' for finding out the stolen property such as cattle. Thus Kallars acted as spies and detectives, and received the tuppukuli as a reward or payment for their service. Britishers accused them that they hide the stolen property and claim 'half of the value' as tuppukuli for returning it and thus it is a 'black mail'. And if the affected persons report to the police, the Kallars will see to it that the property will never be found. Hence the people relied upon Kallars more, than

results in loss of property. On the other hand, if a theft should, by any chance be committed in a house where a Kallan is employed, the articles stolen will be recovered and returned to the owner. In Madura town (Madurai), a tax of four annas per annum is levied on houses in certain streets by the head of the Kallan caste in return for protection against theft" (Thurston, 1975: 63).

However the first complete Census (1871) listed the Kallar as an agricultural caste. And Blackburn argues, using the study by Dharma Kumar (1965) that, 'if the Kallars were cultivators in 1871 then they were cultivators in 1800 as well' (1978: 45). The 1911 census showed that 90 per cent of Kallars were involved in agriculture. But their means of livelihood, derived from the traditional Kaval duties, were constantly under attack by the colonial government throughout the nineteenth century. Thus the Kallars reacted by collecting Kaval fees illegally which took the form of "an extortion racket involving the infamous tuppukuli paid by villager to the Kallar Kavalkarar by returning his 'lost' cattle" (Blackburn, 1978: 47). This 'crime' of levying the traditional fees, now illegal, made the Criminal Tribes Act (CTA) applicable to the Kallars in 1919. What followed has been described by Blackburn thus:

"After 1918, the registration of Kallars under the CTA proceeded at a brisk pace of several thousands each year and resistance to this intrusion reached a climax in 1920.

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Refusals to appear for registration prompted a constable and several armed policemen to go to the village of Perunkamanallur near Madura. A huge mob of Kallars greeted them, and the upshot was 14 Kallars dead - and, later, one constable. Fearful of further Kallar resistance, the government extended the Act to all Kallars in the Madura district that year. Simultaneously police raids on several Kallar villages, in the euphemism of the police reports, "facilitated registration considerably". It was so "considerable" that in 1920 no less than 20,000 Kallars were registered, or 97 per cent of all persons registered under the Act that year. The true intent of the CTA is clear from a report, which stated that the forced registration clause was to be held "in terrorem" against the Kallars. In succeeding years, the CTA was extended to Kallars in Tanjore. In fact, by 1933 the total number of Kallars registered - 38,000 - was equal to the total registered from all the other 250 castes plus "tribes" combined.... In the Madura area, at least, the CTA was, in essence, a Kallar control Act" (ibid: 48).

Thus recent studies such as Blackburn (1978) and Thevar (1976) have reassessed the colonial identification of Kallars as a thieving caste and a criminal tribe. The application of CTA, on the other hand, increased caste consciousness amongst the Kallars, and attempts on their part to raise their social status through various means began.

In 1921, Brahmins formed only 3.7 per cent of the population of Madras Presidency whereas the non-Brahmins with a population of 40 million constituted the vast majority in Madras. The former had monopolised some of the crucial advantages such as education and jobs offered by the British rule. 'The majority community of non-Brahmins felt that

opportunities for government service were unduly denied to them and to the same extent unduly great opportunities were given to the Brahmins' (Subramanian, 1983: 193). These conditions generated a strong anti-Brahmin sentiment, articulated particularly by 'urban, western educated, landowning and professional people' who were the 'later educated middle classes who happened to be non-Brahmins against the earlier educated middle classes who happened to be Brahmins' (Krishna, 1939: 155). Thus the non-Brahmin movement started with the formation of South Indian Liberal Federation, which issued a Manifesto in December 1916, followed by starting of the English daily, among others, called the Justice. A new political party, Justice, was launched in 1917. Under the conditions of limited franchise, the Justice Party led by the educated non-Brahmin elites won the 1920 elections. It, however failed to have representation from some large non-Brahmin castes, including Kallars. The Justice party was conservative, in the nationalist context, seeking change through government legislation as opposed to the Brahmin dominated Home Rule Movement and Congress party. The Kallars tended to be drawn more towards the Congress, at that time.

Under the new political environment, various developments started influencing the socio-economic conditions of the Kallars during the first half of this century. The colonial government had adopted a carrot and stick policy to tame the

Kallars. Alongwith CTA, it launched a Kallar Reclamation Scheme (KRS), to pass on the benefits of education and other welfare measures. On the other hand, Kallars started organising themselves in Sangams (associations) at various levels, through which they adopted measures to improve the status of the community. With these changes, they entered the national political arena.

A small group of educated Kallars of Tanjore city formed an association of Kallars called Indra Kulathibar Sangam (Association of Lord Indra's descendents) in the second decade of this century. At the same time, a magazine Kallar Koman was launched and circulated among Kallars, Maravars and Ahamudaiyars, which together were known as Mukkulathors, who jointly used the surname Thevar.<sup>5</sup>

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5. The Tamil country, including Kerala, right from its formation was ruled by three major dynasties - Cheras (Kerala region), Cholas (Tanjore region) and Pandiyas (Madurai region). According to Puranic and other literary evidences they were the descendents of three gods, - Agni Deva (Fire god), Surya Deva (Sun god) and Chandra Deva (Moon god) respectively, and commemorated this during 'Indra vizha'. Hence they belonged to Thevar Kulam (Deva Sect). They are together called as Moovendar (Triad kings). It is believed that Ahamudaiyar, Kallar and Maravars descended from these kings respectively, and so belong to Thevar Kulam. Hence they use the surname Thevar, but have different specific surnames also such as Thondaiman, Sethupathi, Vandaiyar, Ambalam, Servai, Nattar etc. They are together called as Mukkulathors (Triad Sect). However these three castes do not intermarry.

In 1922, the Piramalai Kallars of Madurai district started collecting a common fund. At one rupee per family, they collected about Rs.14,000 in the same year. (Thevar, 1976: 299). We do not know how they utilised it, but later on in 1968, money from this fund was used to start a degree college for Kallar students at Usilampatti.

A Kallar scholar, Venkatasamy Nattar published Kallar Charitram in the year 1923, wherein he goaded the affluent Kallars to help and bring up their poor brethren, and called for unity of all Kallars in Tamil Nadu.

Raja Rama Pandiyan of Ramnad, a Maravar himself, established Maravar Mahajana Sangam in the year 1929. Similarly, Ahamudaiyar Sangam and Thondaiman Kallar Sangam were formed in Madras and Tirunelveli respectively, in 1932. Sangams were started even outside Tamil Nadu such as Bombay (Matunga), Cylon (Eelam), Malaya and Singapore. (Nattar, 1923: 142; Thevar, 1976: 212). Akila Indiya Mukkulathor Sangam (All India three-caste Federation) was formed in Madras in 1934 under the presidentship of Raja Rama Pandian. It was resolved to unite the three castes at all levels, including marriage alliances, to form branch associations in every region and to encourage education at a wider level through financial assistance to the students. The second conference of AIMS, held in 1940 at Madurai was attended by more than 10,000 representatives.

The colonial government, on its part, also contributed to the advance in education and status of Kallars through "Kallar Reclamation Scheme", initiated in 1919, soon after the implementation of CTA. KRS and implementation of CTA were both entrusted to Raja Iyer in 1920. By forming panchayats (five member committees) of Kallars in one thousand villages and exempting the panchayat members from CTA he was 'successful' in registering a large number of Kallars. With considerable government funds at his disposal he launched various schemes such as compulsory education of Kallar children upto 12 years of age, free meals at school, hostels for Kallar students, and other developmental measures concerning agriculture, handicrafts and transport etc. Scholarships were provided for higher education, and for educated Kallars, jobs as teachers, policemen and workers in textile factories were arranged. In 1926, Kallars educated upto class V were exempted from CTA if the police had no specific objections. According to Thevar, the annual budget for KRS was Rs.1,50,000 till 1925, which was increased to Rs.2,00,000 after 1925 and reached approximately Rs.5,00,000 at the time of Independence. A total of about rupees one crore, was estimated to have been spent on these measures, (1976: 310). For this achievement Raja Iyer was awarded the title of 'Rao Bahadur' and honoured by the colonial government. CTA was cancelled only after the Independence. However, KRS is still continuing

It is interesting, on the other hand, to look at the evaluation of KRS by A. Aiyappan, Secretary of Aboriginal Tribes Welfare Enquiry Committee, soon after the Independence (1948). He strongly made the point that, what the Kallars had needed was not schools and co-operative societies, but improvement in agricultural land which alone could form the foundation of improved economic conditions.

With an improvement in irrigation facilities resulting naturally in a reclamation of the palai<sup>6</sup>, the Melur taluk Kallars are reported to have settled down as good ryots. But in the other areas which have not been so fortunate Kallar crime has gone on unabated..... Nor has the immense expenditure of money and the energies of the huge police and other staffs to educate the Kallar through schools and co-operative societies been of any avail. The 'bee-keeping instructors' and 'poultry farms' could not make the Kallar Nadu flow with milk and honey. An attempt with textile weaving was a similar failure. The rural credit societies have only resulted in the Kallars' lands being encumbered to an extent of nine lakhs of rupees in the Tirumangalam taluk alone, at an average of Rs.100 per acre.

There cannot be a clearer case to show that all attempts at 'reclaiming' a tribe or community must be futile if the land they live on is not reclaimed beforehand. This point is very important in the immediate present. There is a proposal to extend the Periyar project to the Tirumangalam taluk.<sup>7</sup> This should be taken up at once. The only remedy is the conversion of these palai regions into cultivable lands as in Melur (1948: 166-67).

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6. 'Palai' implies a vast tract of land like a desert which has no irrigation sources.
  7. Tirumangalam taluk is adjacent to Usilampatti taluk. One of our villages Singloor is situated in Usilampatti taluk. Canal irrigation was actually introduced in 1960

In their fight against the colonial government, especially in the context of CTA, the Kallars were bound to interact with the political forces at the national level. Congress party used the opportunity to organize Kallar agitations against CTA. George Joseph, a congressman and a leading lawyer of Madurai, guided the Kallars. He addressed their mass meetings, condemning imperialism and the CTA. (Gazetteer, 1960: 77). Later on, Pasumpon Muthuramalinga Thevar, emerged as an influential leader of Mukkulators in Ramnad and Madurai districts. He was drawn towards the congress party and allied himself more closely with the more militant faction within congress led by Subash Chandra Bose. Pasumpon (the name of his village, but literally means 'pure gold'), as he was generally called, shared the Congress platform during the 1937 election on the understanding that the Congress, if voted to power, would abolish the CTA (Thevar, 1976: 241). The Congress party won in Madras but CTA was not abolished. That pushed him even closer to Subash Chandra Bose's Forward Bloc faction, and gradually Pasumpon parted company with the Congress soon after the Independence. In the last years of the colonial rule, there also emerged the Self-respect movement (1925), Anti-Hindi movement (1938) and launching of Dravida Kazhagam (1944) in Tamil Nadu. However, the Kallars seemed to remain in the fold of Congress by and large, although these various movements, primarily

anti-Brahmin, must have influenced the Kallar consciousness and political mobilization.

## 2.2 Social Organisation of Kallars

Kallars are patrilineal and patrilocal. The information available from the literature (see for example, Nattar 1923, Dumont 1974, Thurston 1975, Thevar 1976) on the social organisation of Kallars is complicated and inconsistent. The organisation of Kallars in different regions of Tamil Nadu does not seem to be uniform. However, Kallars in different regions are divided into a set of endogamous groups or nadus, i.e., based on territorial origin. Thus the endogamous nadus of a specific region operate as sub-castes. The number of nadus in each region varies. The Madurai Kallars are divided into ten or eleven nadus.<sup>8</sup> These nadus are further sub-divided into several exogamous groups, variously called Upa-nadus, sections etc. These groups seem to be clustered together in moities-like structure. The descent being

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8. According to Thurston, 'In the Census Report, 1901, it is recorded that in Madura the Kallars are divided into ten main endogamous divisions which are Territorial in origin. These are (1) Mel-nadu (2) Sirukudi - nadu, (3) Vellur-nadu, (4) Malla-kottai nadu, (5) Pakaneri, (6) Kandra Manikkam or Kunnan-kottai nadu, (7) Kandadevi (8) Puramalai-nadu (9) Tennilai-nadu and (10) Palaya-nadu.' (1975: 71).

On the other hand, Thevar gives a list of eleven nadus. They are as follows: (1) Kil nadu (2) Vellur nadu (3) Mela-nadu (4) Sirukudi nadu, (5) Naduvi nadu, (6) Piranmalai-nadu, (7) Pakaneri-nadu (8) Kandar Manickka nadu (9) Kunnan kottai nadu (10) Pathinalu nadu and (11) Pattamangala nadu.' (Thevar, 1976: 91-100).



recognised through the males only, all the male members in the exogamous groups are Pangalis or "brothers" to each other. Other exogamous groups and their male members, which are related through marriage are called maman-maccunan or "maternal cross-cousins". If a group B is maman-maccunan to a group A and group B is also maman-maccunan to a group C then A and C are secondary Pangalis or mureikku Pangalis.

One of the naḍus of Madurai region, Piramalai naḍu, was studied by Dumont. The two villages under study in the present work, Singloor and Doubloor, also comprise the Piramalai Kallars. These Kallars are sub divided into eight exogamous units which are the following: (1) Thidiyan (2) Valandur (3) Puthur (4) Papapatti (5) Karumathur (6) Kokkulam (7) Veppanoothu and (8) Thummakundu.

The first four are Pangalis to each other and maman-maccunan to the last four and vice versa. Our village Singloor comprises almost entirely of Valandur Kallars whereas Karumathur and Kokulam Kallars are predominant in Doubloor.

According to Thurston, "it is noted, in the Gazetteer of the Madura district, that every Kallar boy has a right to claim the hand of his paternal aunts' daughter in marriage..... the maternal uncle pays the costs of the rites which are observed when a girl attains puberty, for he has a claim on

the girl as a bride for his son" (1975: 74-75). Such a preferential system of marriage, called Murai (turn), continues to be practised amongst the Kallars in our study. The Kallars have a saying Pen Koduthavan Pen Edu, implying one who gave a woman must take back a woman.

Land is inherited equally by all the sons. However, under certain circumstances, a woman may be given a piece of land as part of the dowry. In Murai system land as part of dowry can be used to keep the landed property intact, particularly in the absence of a son. This will be seen to play an important role in the village Doubloor.

In the present study, the two villages selected are numerically, economically and politically dominated by Kallar caste. Therefore the brief sketch of history and social organisation of the Kallars outlined in this chapter should help in seeing some of the important differences between Brahmin- dominated villages — which form a majority of Tamil Nadu's villages studied by sociologists/social anthropologists — and villages dominated by a peasant caste such as Kallar.

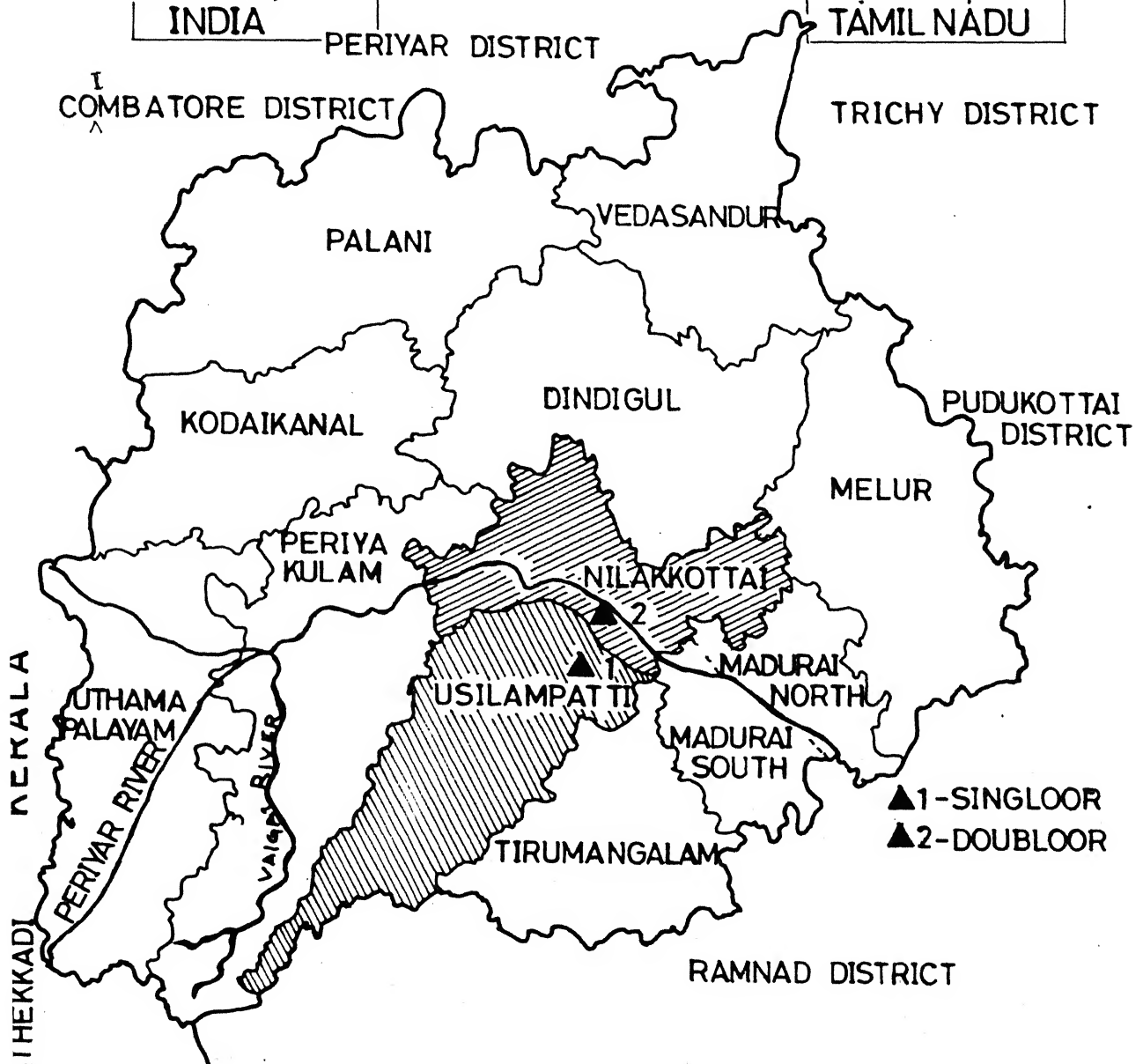
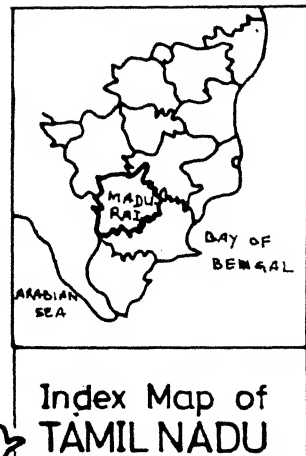
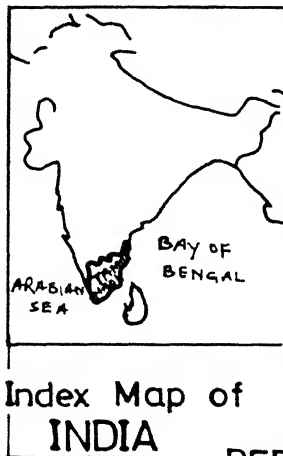
## CHAPTER III

### METHODOLOGY

The present study is based on field work in two villages of district Madurai in the state of Tamil Nadu. The first village, Singloor, located in Usilampatti taluk was introduced to canal irrigation in the year 1960 and now receives canal water for a single crop. The second village, Doubloor, located in Nilakkottai taluk was introduced to canal irrigation in the year 1900 and now receives canal water for two crops (see Figure 3.1). Both the villages are numerically dominated by Kallar caste. Whereas more than half of Doubloor households are landless, the percentage of landless households in Singloor is only 27. Also land distribution in Doubloor is far more inequalitarian in contrast to Singloor.

In this chapter we begin with a brief description of Madurai district. In section 3.2 the village Singloor is described in terms of its history, caste and land distribution. Similarly village Doubloor is described in section 3.3. Section 3.4 deals with modes of data collection and analysis, whereas the procedure for picking out a 20 per cent sample for detailed collection on certain aspects of Agricultural production is outlined in section 3.5.

# Map of Madurai District Showing the Location of our Temple Villages.



### 3.1 Madurai District

Madurai district is in the western uplands of Tamil Nadu. It is surrounded by the state of Kerala in the west; Coimbatore, Periyar and Trichy districts in the north; Pudukkottai and Ramanathapuram in the east and Ramanathapuram (Ramnad) in the south. It covers an area of 12,629 sq. km. out of which, urban area occupies only 461 sq. km. (3.7%) (SHB, 1980: 62).

According to the 1981 census, the total population of the district is 4.53 million (rank first), consisting of 2.29 million males (50.6%) and 2.24 million females. The rural population is estimated to be 2.89 million (63.7%), out of which males account for 50.3% (Census, 1981: 94-95).

The rural population is classified broadly into three types of workers, as main workers, marginal workers and non-workers.<sup>1</sup> The 'main-workers' comprise of cultivators, agricultural labourers, household industry manufacturers, processors, servicemen, repair workers and other workers.<sup>2</sup> The

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1. 'The dichotomy of worker/non-worker of 1961 and 1971 censuses is discarded in 1981 census and instead, a trichotomy as main workers, marginal workers and non-workers is adopted. For main workers, the time criterion of engagement in work for the major part of the year, i.e., at least 183 days is adopted while those who worked for some time during the last year but not for the major part are treated as marginal workers. Those who had never worked during the last year are non-workers' (Census, 1981: 6).

processors, servicemen, repair workers and other workers.<sup>2</sup> The entire rural population is dominated by 'main workers' of about 1.4 million (48.4%) followed by non-workers of about 1.3 million (46.4%)<sup>3</sup>. There is an insignificant amount of marginal workers of about 0.15 million (5%)<sup>4</sup> (Census, 1981: 94-97).

Among the rural population of main-workers, the section of agricultural labourers dominates (0.67 million; 48.3%)<sup>5</sup>. This is followed by 'cultivators' (0.48 million; 34%), 'other workers' (0.22 million 15.5%) and 'household industry workers' (0.03 million 2.2%). Thus we find that the district is predominantly rural and the rural working population is mostly involved in direct agricultural production either as agricultural labourers or cultivators.

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2. 'Other workers include the following: Livestock, forestry, fishing, hunting and plantations, orchards and allied activities, mining and quarrying, manufacturing, processing, servicing and repairs other than household industry construction, trade and commerce, transport, storage and communications, and other services' (Census, 1981: 7).
  3. Female non-workers exceed (0.8 million; 59.4%) male non-workers (0.5 million; 40.6%).
  4. Females form a significantly high proportion among Marginal workers. Males account for 0.05 million (31.7%) whereas females account for more than 0.10 million (68.3%).
  5. The district is the second highest of the state (39%) preceded by Thanjavur (46%) (ibid: 9).

The normal rainfall of the district is 854.8 mm, which is less than the state normal rainfall (945.7 mm.) (SHB, 1980: 50). The maximum rainfall is received by the state (47.55%) during the northeast monsoon in the period of October to December, followed by South West monsoon (32.5%) during the period of June-September.

The district is chiefly benefitted by three river projects viz., Periyar, Vaigai and Manjalar (ibid: 165). The net area irrigated is 41% (2.4 lakh hectares) of the net area sown (5.85 lakh hectares) (SHB: 159). The area covered by the canals is not available. But a total of 203 canals cover a distance of 394 kms (ibid: 153-155).

The types of soil prevalent in the district are Redloam and Black soil (ibid: 88-89). Rice, cotton, sugarcane and maize (chulam) are the main crops. The district stands seventh in rice production, second in chulam, first in cotton and seventh in sugarcane in the state (SHB: 108-111).

Madurai city has been a centre for Textile industries (Harvey Mills, Madura coats, Meenakshi Mills) and Automobile Industries (TVS).

### 3.2 Singloor

#### 3.2.1 History:

Establishment of the village has a complex legend behind it. Ignoring the details, the following structure

emerges out of it. The original settlers of Singloor belong to the Monthakutti (MK) clan which separated out of the Valandur Upa-nadu although it remains a Pangali to the later. Members of Karumathur Upa-nadu are Maman-maccunan (MM) to MK and a clan Akka Mahan Sakkarai (AMS) is MM to Valandur Upa-nadu. Some members of Karumathur Upa-nadu used to reside in Singloor.

Kida-vettuthal is an important ritual ceremony in the religious festivals of Piramalai Kallars. In this ceremony heads of the he-goats are severed in front of the deities, as a sacrifice, by a member of the closest MM. The right to sever the he-goat is called Muthamai of the concerned MM. AMS has this Muthamai in relation to the Valandur Upa-nadu. Therefore MK clan also gave this Muthamai to AMS. However Karumathur MM, who have most of the affinal ties with MK, felt that the Muthamai is their right. This conflict resulted in riots in the year 1947. After the riot KMM established a new village near Singloor although a part of Singloor land is still owned by the members of KMM. However, some members of KMM, returned to Singloor.

### 3.2.2 Infrastructure:

Singloor is situated 25 km away from Madurai town and is connected with it by bus through a near by village. The nearest town as well as the taluk H.Q. called Usilampatti, is



10 km. away from the village towards west. It is a developing commercial centre, where a weekly fair is held on Wednesdays. The offices of Revenue Divisional Officer (RDO), Tahsildar and District Educational Officer (DEO) are situated here. There are three higher secondary schools and a men's degree college. The town is the main centre of entertainment. A general hospital and a main post office are situated here. Business is dominated by Nadar caste which is also politically very influential in the town.

The nearby village, Chellampatti, which is located on the main road connecting Usilampatti with Madurai has a Primary Health Centre, Block Development Office, Panchayat Union office, a sub-post office and a branch of Canara Bank. It has also got a Higher Elementary School (upto class VIII) which is attended by most of the Singloor children.

Singloor has a Primary School with only four teachers. All the teachers come from towns. The village has only three petty shops where only betel-leaves, beedi, cigarettes and snacks are available.

### 3.2.3 Population and Caste:

There are 155 households with a population of 713 (males 351, females 362). The average household size is 4.6.

Singloor population is divided into five castes. These are Kallar, Naidu (temple priest), Pallar (earth digger and

tank water guard), Paraiyar (drum beater, carcass remover and cremater) and Vannan (washerman). The Pallar and Paraiyar are the so-called Adi-Dravidas (Scheduled Castes).

The Asari (carpenter cum blacksmith) and the Ambattan (barber) have shifted their residence to Chellampatti. They visit Singloor as and when necessary and are remunerated in cash. However, the Vannans are still paid in kind by the peasants, though a few educated 'gentlemen' have started paying them in cash.

Table 3.1

Castewise Population of Singloor.

Sl. No.	Castes	Number of households	Population			Average population per household.
			Male	Female	Total	
1.	Naidu	6 (3.9%)	17	13	30 (4.2%)	5.0
2.	Kallar	99 (63.9%)	224	232	456 (64.0%)	4.6
3.	Vannan	4 ( 2.6%)	8	10	18 (2.5%)	4.5
4.	Pallar	15 (9.6%)	39	48	87 (12.2%)	4.8
5.	Paraiyar	31 (20%)	53	69	122 (17.1%)	4.4
Total		155 (100%)	351	362	713 (100%)	4.6

The table shows the predominance of Kallars both in terms of households and population (64 per cent).

### 3.2.4 Land and Irrigation:

Singloor is irrigated through Tirumangalam Main Canal (TMC), introduced in the year 1960 as a part of Periyar-Vaigai project. It gets water for  $3\frac{1}{2}$  months in a year starting from June middle (at the month of Avani during which paddy preparation is started). But the date of release of water is not certain, as it depends upon the monsoon and the water level at the Vaigai Reservoir. Thus the canal water is supplementary to the rain water.

Singloor also has a 'Kanmai' (tank), with which 80 acres are benefitted directly. It is also used as a storage of canal water and thus irrigates more than 80 acres. This tank and the wells were the main source of irrigation before the advent of canal irrigation. The number of 'kamalai wells' are decreasing, and being replaced by pumpsets run by electricity.<sup>6</sup>

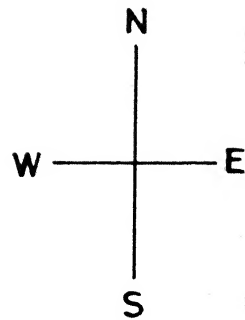
The land is generally of two types, the canal fed (manalkadu) and the tank fed (vayal), the water being interchangeable from canal to tank and vice versa. The tank fed lands are of 'kalimann' soil (pure clay) which retains water longer than sandy soil of canal fed lands. These are discussed in detail in chapter IV ( see Figure 3.2).

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6. Pumpsets are installed in open wells in Tamil Nadu, unlike North India. These are energised either with electricity or diesel.

Figure 3.2

# Singloor, The Village and Land



- ▣ ▣ - Naidu Households
- □ - Kallar Households
- ▣ ▣ - Vannan Households
- ● - Scheduled Castes Households

PMP - Public Meeting Place

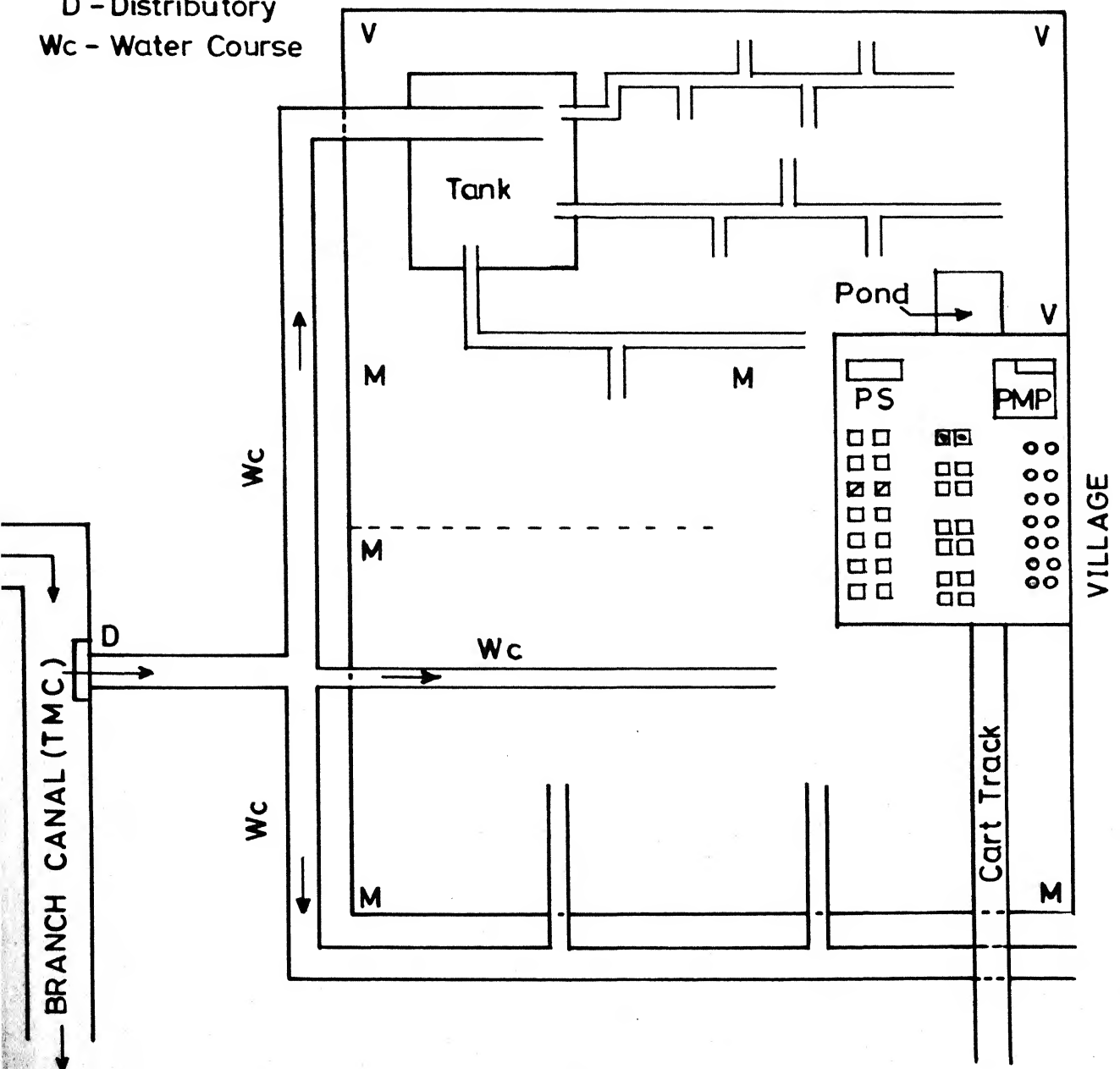
PS - Primary School

M - Manal Kadu

V - Vayal

D - Distributary

Wc - Water Course



Paddy and Sugarcane are the main crops in 'vayal'; cotton, vegetables and millets are cultivated in 'manal kadu' in addition to paddy.

### 3.2.5 Land Distribution: -

The average size of landholding per household is 1.48 acres, with a maximum of 10 acres and a minimum of 0.25 acres (other than the landless) 27 per cent households are landless.

Table 3.2

#### Landsize Classification of Singloor Households

Land size classification (in acres)	Number of households	Percentage among the land owning households	Land owned (in acres)
Landless	42 (27.09%)	0	0.00
0 - 1.00	42 (27.09%)	42 (37.17%)	32.14 (13.93%)
1.01-2.50	41 (26.45%)	41 (36.28%)	75.75 (32.93%)
2.51-5.00	25 (16.13%)	25 (22.12%)	89.36 (38.85%)
5.00 +	5 (3.23%)	5 (4.42%)	32.75 (14.24%)
Total	155	113	230.00

Among the landowning households 37 per cent own 14 per cent land, and another equal proportion of households (36 per cent) own 33 per cent land. Thus a total of 73.5 per cent

households own 47 per cent land.

A third section of 22 per cent households own 39 per cent land and finally 4 per cent households own 14 per cent land. Thus very few households come under the category of owning more than five acres.

Table 3.3

Castewise Distribution of Land in Singloor

Sl. No.	Castes	Number of households	Land	
			Total land (in acres)	Average per household (in acres)
1.	Naidu	6 (3.9%)	18.50 (8.04%)	3.08
2.	Kallar:	99 (63.9%)	196.00 (85.23%)	1.98
3.	Vannan	4 (2.6%)	0.00 (0.00%)	0.00
4.	Pallar:	15 (9.6%)	3.50 (1.52%)	0.23
5.	Paraiyars	31 (20.0%)	12.00 (5.21%)	0.39
Total		155	230.00	1.48

Kallars dominate in land owning (85%) followed by Naidus (8%). But the land owned by an average household is higher in Naidus (3 acres) followed by Kallars (2 acres). The land owned by Pallars and Paraiyars is insignificant.

Tenancy is not very significant in Singloor. Only 4 households, two landless and the other two owning one acre each, are tenants.

### 3.3 Doubloor

#### 3.3.1 History:

The Madura District Gazetteer 1914, reads as:

"Sholavandan is said to mean 'the Chola came' and the old name of the village is shown by inscriptions to have been Cholantaka-Chaturvedi Mangalam, the first part of which means 'destruction to the cholas'. Hence tradition has it that the town was the scene of a defeat of the cholas by the Pandya kings of Madura but when this occurred is not clear.... In 1566 Viswanatha's minister, Arya Nayyakka Mudali brought a number of his caste men (Tondai mandalam Vellalas) from near conjeevaram and settled them in Sholavandan building for them 300 houses, a fort and a temple, providing them with a guru, slaves, artisans and Paraiyans. Their descendents are even now found in considerable numbers....." (1914: 296).

An analysis of land registration records available at the sub-registrar's office Sholavandan shows that, the lands were by and large owned by Ayyars (Brahmins), Vellalas (agriculture caste) and Pandarams (priests and flower decorators in temples) till the end of nineteenth century. A lot of land was sold between 1940 to 1960.

But Kallars came to Doubloor in the beginning of nineteenth century and lived for four generations. Originally they belong to Karumathur and Kokkulam nadus (see the Upa nadus

of Piramalai nadus in chapter 2). They began their life as Kavalkarars and tenants, and gradually captured the lands. As a result of the non-Brahmin movement in forties (see, for example, Beteille, 1973: 270), westernization of Brahmins, and Tenancy legislations of 1955, 1956 and 1969, Brahmins left the lands to Kallars of Doubloor. The last Brahmin too sold his land in 1977.

### 3.3.2 Infrastructure:

Doubloor is situated 40 km. away from Madurai. It is situated within 10 minutes walk, from a nearby village, which is connected by bus to Sholavandan and Madurai. Sholavandan, the nearest town is 8 km. away. However the taluk headquarter is at Nilakkottai, and the panchayat union office is at Vadipatti, which are within 10 km. from the village. There are three higher secondary schools, a degree college for boys, hospital, post office, sub-registrar office, police station and a cinema hall at Sholavandan. "Sholavandan is chiefly known for its numerous plantations of coconuts and the richness of its wetlands. The advent of the Periyar water has made them more valuable than ever and they (lands) command very high prices" (Gazetteer, 1914: 296). Doubloor has a primary school, taught by only two teachers. The high school is situated in the nearby village, approachable by a 15 minutes walk.



### 3.3.3 Population and Caste:

There are 106 households in Doubloor, with a population of 486 (males 244, females 242). The average household size is 4.58.

There are 7 castes in Doubloor. They are the Kallars, Servais (warriors), Konars (cowherds and shepherds), Nayakkars (sooth sayers and warriors), Chettiyars (merchants), Vannan (washerman) and Chakkiliyars (cobblers, carcass removers). Chakkiliyar is the only Adi-Dravida caste (scheduled caste). The village has no other service castes such as Asari and Ambattan. They are found in neighbouring villages.

Table 3.4

#### Castewise Population of Doubloor

Sl. No.	Caste	Number of households	Population			Average population per household
			Male	Female	Total	
1.	Chettiyar	1 (0.9%)	4	4	8 (1.6%)	8.00
2.	Nayakkar	5 (4.6%)	12	11	23 (4.7%)	4.60
3.	Konar	7 (6.7%)	28	27	55 (11.3%)	7.86
4.	Servai	8 (7.6%)	22	24	46 (9.5%)	5.75
5.	Kallar	80 (75.5%)	167	166	333 (68.5%)	4.20
6.	Vannan	1 (0.9%)	3	3	6 (1.2%)	6.00
7.	Chakkiliyar	4 (3.8%)	8	7	15 (3.1%)	3.75
Total		106	244	242	486	4.58

The Kallars dominate in terms of households (75.5 per cent) and population (68.5 per cent).

#### 3.3.4 Land and Irrigation:

Doubloor lands are irrigated by Periyar Main Canal (PMC) system, through a separate channel called, Thenkarai Channel (TKC), which takes off directly from the Vaigai River, at a point just below the Peranai Regulator (explained in Figure 5.2). The TKC carries water for 6 months starting from June. The date of releasing water does not depend upon monsoon etc., as in the case of TMC (Singloor). So the cultivation starts at the stipulated time. Another advantage of TKC is, getting excess water at the time of floods, since it takes off directly from the river. However it also has some specific problems, which are discussed in chapter 5.

Doubloor is benefitted by canal irrigation since the beginning of this century. It has no tank irrigation. There are only four wells of recent origin (after 1975), out of which two are equipped with electricity run pumpsets and other two are yet to be equipped. Paddy is the only crop cultivated in all seasons.

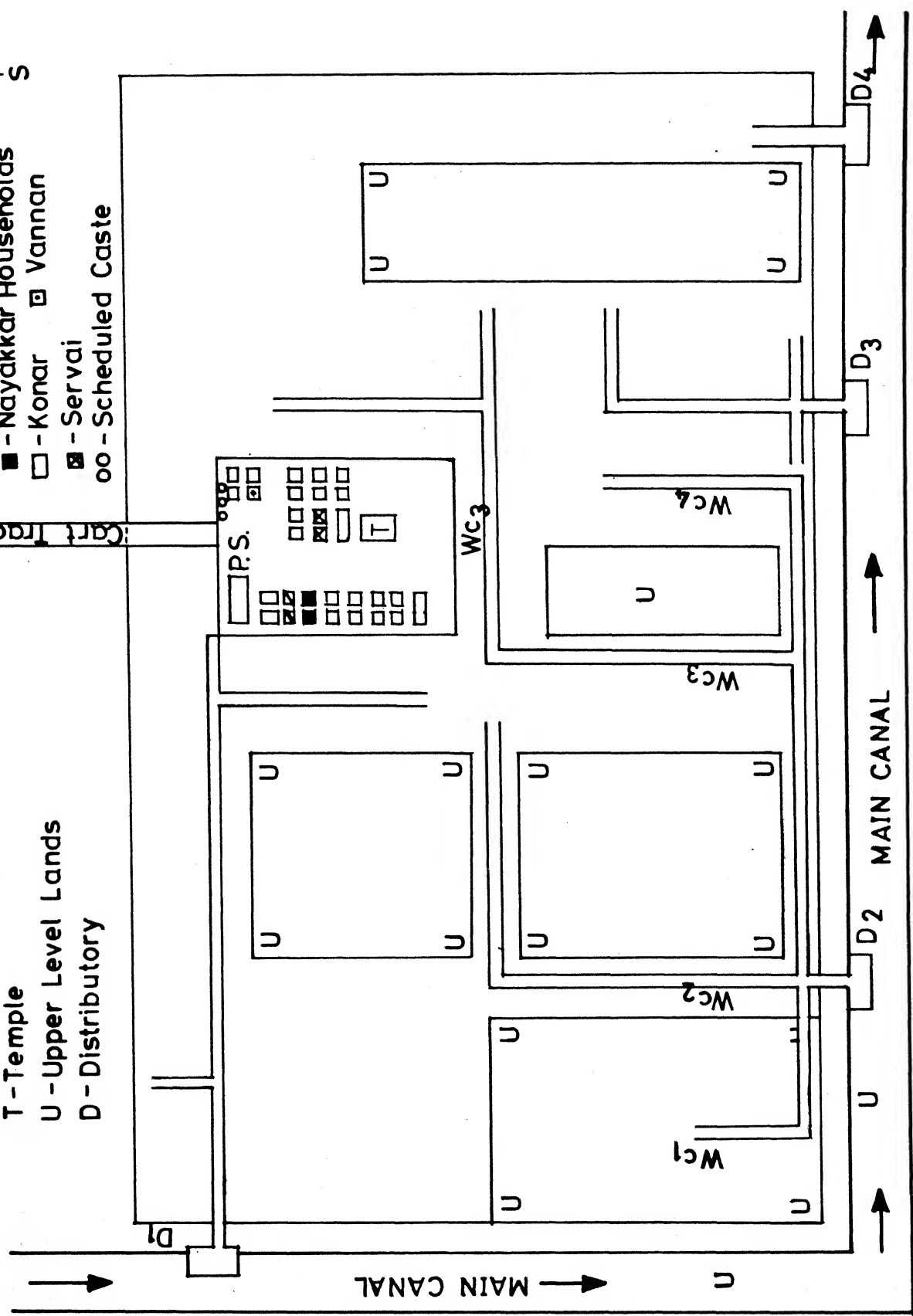
The surface level of Doubloor lands are unequal. It is because of the mountain range of Nagamalai. The ups and downs level of land varies upto one metre, which affects the flow of water accordingly. However, the upper level lands are

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- ▣ - Chettiyar Households
- - Kallar Households
- - Nayakkar Households
- - Konar
- ▣ - Vannan
- ▣ - Servai
- oo - Scheduled Caste

- Wc - Water Course
- P.S. - Primary School
- T - Temple
- U - Upper Level Lands
- D - Distributory

Cart Track



being converted into lower levels gradually. The unconvertible lands are planted by crops like coconut and plantain which do not require irrigation as often as paddy. But in Doubloor these crops are very insignificant.

The type of soil also differs according to the difference of surface level. The soil of upper level lands is coarser than the middle and lower level lands. The middle level lands have sand mixed with clay whereas, the lower level lands are purely clayish (see Figure 3.3).

### 3.3.5 Land Distribution

The average land owned by households is 1.03 acres, having a maximum of 16 acres and a minimum of 0.25 acres, other than the landless. 55 per cent households are landless.

Table 3.5

#### Landsize Classification of Doubloor Households

Land size classification (in acres)	Number of households	Percentage among land- owning households.	Land owned (in acres)
Landless	58 (54.72%)	0	0.00
0 - 1.00	26 (24.53%)	26 (54%)	18.50 (16.97%)
1.01 - 2.50	12 (11.32%)	12 (25%)	23.50 (21.56%)
2.51 - 5.00	6 (5.66%)	6 (12.5%)	19.00 (17.43%)
5.00 +	4 (3.77%)	4 (8.33%)	48.00 (44.03%)
Total	106	48	109.00

Among the landowning households, 54 per cent own less than an acre and 17 per cent of total village land. 25 per cent households own between 1.01 and 2.50 acres and 22 per cent of total village land. Thus 79 per cent of the landowning own only 39 per cent land. On the other hand, those owning more than five acres constitute only 8.3 per cent of the landowning households and own 44 per cent of the total village land.

Thus distribution of land is far more skewed in Doubloor in comparison with Singloor.

Table 3.6

Castewise Distribution of Land in Doubloor

Sl. No.	Castes	Number of households	Land	
			Total land (in acres)	Average per household (in acres)
1.	Chettiayar	1 (0.9%)	0.00 ( 0 )	0.00
2.	Nayakkar	5 (4.6%)	4.50 (4.13%)	0.90
3.	Konar	7 (6.7%)	9.75 (8.94%)	1.39
4.	Servai	8 (7.6%)	4.50 (4.13%)	0.56
5.	Kallar	80 (75.5%)	90.25 (82.79%)	1.12
6.	Vannan	1 (0.9%)	0.00	0.00
7.	Chakkiliyar	4 (3.8%)	0.00	0.00
Total		106	109	1.03

Kallars own 83 per cent land followed by Konars (9 per cent). Nayakkars and Servais own 4 per cent land each. The rest of the castes own no land.

However, on an average, Konars exceed the Kallars because a considerable section of Kallars (40 per cent) are landless.

Table 3.7

Tenancy in Doubloor

Type of tenants	Kallars	Servai	Konar	Nayakkar	Total
Landless	13 (12.26%)	2 (1.9%)	0	0	15 (14.15%)
Landed	6 (5.7%)	0	3 (2.83%)	2 (1.9%)	11 (10.37%)
Total	19 (17.92%)	2 (1.9%)	3 (2.83%)	2 (1.9%)	26 (24.52%)

Tenancy is more prevalent in Doubloor than Singloor. Out of 26 tenant households 15 are landless and 11 are landed tenants. 73 per cent of the tenant households are of Kallars. Among the Kallar tenant households 13 out of 19 are landless. Most of the landless households are Kallars (13 out of 15).

### 3.4 Data Collection and Analysis:

An exploratory trip to the Periyar- vaigai command area of Madurai district of Tamil Nadu was made in 1982 to select the field. It was learnt that the area irrigated by Thenkarai

Channel (constructed towards the end of the nineteenth century) near Sholavandan faced irrigation problems and therefore it was decided to select a village (Doubloor) in that area. Another village (Singloor) was selected under the Tirumangalam Main Canal system for its limited exposure to canal irrigation whose introduction in 1960, nearly coincided with the launching of the Green Revolution. In addition, Singloor received canal water for only a single crop in contrast with Doubloor which received canal water for both the major crops.

Thus two villages have been selected, in which canal irrigation is experienced differently. It was assumed that the differential in irrigation conditions would lead to different patterns of development. The choice of Kallar dominated villages was made consciously as a contrast to the existing studies of Brahmin dominated villages in Tamil Nadu.

A general census was conducted to identify the various characteristics and categories of the people, in the first phase of fieldwork (1982). Then the sample was decided. During the second phase (1983), a questionnaire was applied. The questionnaire consisted of questions on eight major dimensions viz., land holdings, organisation of labour, irrigation practices, cropping pattern, tenancy, indebtedness and savings. However, this did not work effectively because

the respondents were tense to see paper and pen. Hence, data was collected through casual conversations and observation. Notes were taken in the field and information recorded was transferred to the questionnaire later on.

Singloor people were comparatively more receptive and open minded. Rapport was established quickly and it was very easy to shift to a house belonging to a teacher of Kallar caste who owned 0.5 acre of land in Singloor. Such a rapport could not be established in Doubloor. That is why fieldwork in Doubloor was conducted partly by renting a room in the nearby town, Sholavandan, and partly residing in the village itself.

At the village level, data was collected on landholdings, cropping pattern, organisation of labour, various practices in agriculture, tenancy, co-operation and conflict over irrigation at inter and intra village levels, education, kinship patterns and political affairs.

Data was collected on Periyar-vaigai project from the offices of the department of irrigation at Madurai and Madras; on history of Kallars and the region from Madras State Archives, Madras and Maraimalai Adigal Library, Madras; sales and purchase of land and the landholdings from the sub-registrar's offices at Chekkanoorani (for Singloor) and Sholavandan (for Doubloor); and on various other details from the local officials of Revenue, Agriculture, Irrigation



and other departments.

### 3.5 Sampling:

An analysis of the data collected through census and questionnaire, resulted in the identification of four distinct groups in both the villages viz., cultivating land owners, landowning tenants, landless tenants and landless labourers. These four groups cut across the different castes. Therefore, a sample of households representing all these sections of agrarian community was selected. In addition, care was taken to include, proportionately households from all land size categories as well as castes in the respective villages. The total sample size was 20 per cent of all households. The sampling distribution is given here in the form of tables (Tables 3.8 and 39). Detailed information on sample households provided the basis for various case studies in different chapters.

Four Categories	Naidu		Kallar		Vannan		Pallar		Paraiyar		Total	
	Popu- lati- on	Sample	Popula- tion	Sample	Popula- tion	Sample	Popu- lati- on	Sample	Popul- ation	Sample	Popu- lati- on	Sample
Cultivating landowners	6	1	93	18	0	0	6	1	5	1	110	21
Landowning Tenants	0	0	2	1	0	0	0	0	0	0	2	1
Landless Tenants	0	0	1	0	0	0	0	0	1	1	2	1
Landless labourers	0	0	3	1	4	0	9	2	25	5	41	8
Total	6	1	99	20	4	0	15	3	31	7	155	31

Table 3.9

Sampling Distribution in Doubloor

Four Categories	Chettiyar	Nayakkar	Konar	Servai	Kallar	Vannan	Chakkil- liyar	Total								
	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on	Popu- Samp- lati- le on								
Cultivating landowners	1	0	0	3	0	4	1	29	6	0	0	0	37	7		
Land owning Tenants	0	0	2	0	3	1	0	0	6	1	0	0	0	11	2	
Landless Tenants	0	0	0	0	0	0	2	0	13	3	0	0	0	15	3	
landless labourers	0	0	3	0	1	0	2	1	32	6	1	0	4	2	43	9
Total	1	0	5	0	7	1	8	2	80	16	1	0	4	2	106	21

## CHAPTER IV

### AN INTRODUCTION TO AGRICULTURAL CHANGE

This chapter provides a general introduction to organisation of agriculture at the village level as a background for the subsequent two chapters on social organisation of irrigation and agrarian social structure. Particular emphasis is laid on changes in Singloor and Doubloor as a result of introduction of canal irrigation on the one hand and encounter with the package of new technologies, which constituted an essential ingredient of the Green Revolution, on the other.

Agricultural seasons in Madurai district are briefly mentioned in the first section, followed by different types of land in the two villages in section 4.2. Keeping on account the types of land, different cropping patterns are presented in section 4.3. In sections 4.4, 4.5, and 4.6, general organisation of agriculture in Singloor and Doubloor is discussed in three different phases, respectively: pre- canal irrigation period, post - canal irrigation and pre- Green Revolution period, and post- Green Revolution period. Section 4.7 deals with labour organisation and, finally, wage structure is discussed in the last section.

#### 4.1 Agricultural Seasons:

An agricultural year is divided into two main seasons - Kalam (the monsoon season) and Kodai (the summer season).

Kalam is attributed to the period of 6 months from mid-Adi to mid-Thai (August to January) and Kodai is attributed to the rest of the year, from mid-Thai to mid-Adi (February to July).

Kalam receives a part of the South-West monsoons (August-September) and the complete North-East monsoon (October-December), and so is considered as the monsoon season. Whereas Kodai receives the initial rains of South-West monsoon towards the end of June-July.

Accordingly Nanjai Payir<sup>1</sup> (wet crops) are cultivated in Kalam season and Punjai Payir<sup>2</sup> (dry crops) are cultivated in Kodai.

The Madurai District Gazetteer gives an account of the seasons as follows:

"The normal cultivation seasons for paddy are June-August and September-December. During these seasons two kinds of crops, one a short term crop called the 'Kodai' and the other a long term crop called the 'Kalam' are sown. The short term crop is usually of  $3\frac{1}{2}$  months or  $4\frac{1}{2}$  months duration, while the long term crop is usually of 5 or 6 months duration" (Baliga, 1960: 141).

1. Nanjai Payir or wet crops are primarily the crop which needs irrigation, such as, Paddy, Sugarcane, Vegetables.
2. Punjai Payir or dry crops are the crops which need no irrigation, such as, millets.

## 4.2 Types of Land:

### 4.2.1 Singloor:

Singloor has two types of lands. Manal Kadu (sandy field), approximately 150 acres, Vayal (wet land), approximately 80 acres, together account 230 acres. Manal Kadu, situated in the South and Western sides of the village, comprises of sand, Red soil and Black cotton soil. Vayal, situated in the North and North-Eastern sides of the village, comprises of pure clay which is irrigated by a tank (see **Figure 3.2**).

Before the advent of canal irrigation semi-wet and dry crops were cultivated in Manal Kadu, whereas wet crops were primarily cultivated in Vayal.

Since 1960, after the advent of canal irrigation, paddy (wet crop) is uniformly cultivated in both types of land, from June to September/October. Sugarcane is the next major crop other than paddy in Vayal, whereas cotton is the next major crop in Manal Kadu.

In addition to canal irrigation, wells were also constructed. In 1982, there were 66 wells in the village (Pumpsets 28, Kamalai 38).

#### 4.2.2 Doubloor:

Doubloor has a different pattern of land system. The land in Doubloor is wave- like in terms of surface levels, because of the Nagamalai-hill range. There is a difference of 1 metre between a higher land and lower land. There are four patches of upper land (See Figure 3.3).

The upper level lands have coarse soil which does not retain water for a long time. The lands at the middle level are clay mixed with coarse soil while the land at the lowest level are clayey. Accordingly the number of times the land required to be watered vary.

#### 4.3. Cropping Pattern:

##### 4.3.1 Singloor:

Singloor has five types of cropping pattern (Manal Kadu 3, and Vayal 2).

##### Manal Kadu

The first type shows a pattern comprising 5 crops (all irrigated) in two successive years.

Table 4.1

Type I Cropping Pattern (Manal Kadu) in Singloor

Sl. No.	Crop	Period	Source of irrigation
1.	Paddy (Co.37:115 days)	June-September	Canal
2.	Cotton (180 days)	October-March	Canal + Well
3.	Millet (Maize, Ragi: 90 days)	April-June	Well
4.	Paddy (Co. 37: 115 days)	July - October	Canal
5.	Cotton (180 days )	November-May	Well

In the first type, the alternate millet crop is dropped, and the land is left fallow. (after two years). During this fallow period, the land is tilled in addition, and manured.

The second type shows a pattern comprising of two crops (both irrigated) in a year.

Table 4.2

Type II Cropping Pattern (Manal Kadu) in Singloor

Sl.No.	Crop	Period	Source of irrigation
1.	Paddy (IR. 20: 135 days)	June-October	Canal
2.	Cotton 180 days or Vegetables/pulses/milletts	November-April	Well



In this type, the land is left fallow in the month of May.

The third type also shows a pattern of two crops in a year, but, only the first crop is irrigated.

Table 4.3

Type III Cropping Pattern (Manal Kadu) in Singloor

Sl.No.	Crop	Period	Source of irrigation
1.	Paddy (IR 20: 135 days)	July - November	*Canal
2.	Mixed crop Millets, pulses etc.	January - April	

Vayal (tank-wet)

There are two types of cropping pattern in Vayal.

The first type shows a pattern of 3 crops (all irrigated) in two years as follows:

Table 4.4

Type IV Cropping Pattern (Vayal) in Singloor

Sl. No.	Crop	Period	Source of irrigation
1.	Paddy (Ponni : 140 days)	July- November	Canal + tank
2.	Cotton	December-April	Tank/Well.
3.	Sugarcane	June - June	Canal + Tank + Well

In some cases, the period is three to four years, as Sugarcane is continued by extending to secondary and tertiary levels.

The second type pertaining to the tail-end areas, shows, a pattern of two crops, annually.

Table 4.5

Type V Cropping Pattern (Vayal) in Singloor

Sl. No.	Crop	Period	Source of irrigation
1.	Paddy (IR 20: 135 days)	August-December	Canal + Tank
2.	Cotton or Millets	January - June	Tank/Dry.

The following is an approximate account of land under different crops in Singloor in the year 1982-1983.

Table 4.6

Types of Land under Different Crops: Singloor - 1982-83

	Crop	Land in acres		
		Manalkadu	Vayal	Total
First crop (June-October)	1. Paddy	135	45	180 (78%)
	2. Sugarcane	5	35	40 (17%)
	3. Millets	5	0	5 (2%)
	4. No crop	5	0	5 (2%)

Contd.....

(Table 4.6 Contd....)

	1. Cotton	120	10	130 (57%)
Second/ third crop (November- May)	2. Sugarcane	5	35	40 (17%)
	3. Millets	10	15	25 (11%)
	4. Pulses, Vegetables	5	5	10 (4%)
	5. No crop	10	15	25 (11%)

#### 4.3.2 Doubloor:

Doubloor has a single cropping pattern, i.e., two crops of paddy in a year.<sup>3</sup> The varieties of paddy are different and are staggered accordingly.

Table 4.7

Land under Paddy varieties in Kalam: Doubloor 1982-83

Sl. No.	Crop	Days	Period	Total land (in acres)
1.	Paddy : Neikitchadi	(105)	June-September	25 (23%)
2.	Paddy : A.D.T. 31	(105)	June- September	15 (14%)
3.	Paddy : Vaigai	(105)	June-September	10 (9%)
4.	Paddy : IET. 4786	(105)	June-September	5 (5%)
5.	Paddy : Co. 37	(115)	June-September	5 (5%)
6.	Paddy : Karuna	(90)	June-August	15 (14%)
7.	Paddy : IR. 20	(135)	June-October	15 (14%)

3. Coconut and plantain account for five per cent of land each.

Table 4.8

Land under Paddy Varieties in Kodai: Doubloor 1982-83

Sl. No.	Crop	Days	Period	Total land (in acres)
1.	Paddy : IR.20	(135)	September-January	55 (50%)
2.	Paddy : Ponni	(140)	September-January/ February	15 (14%)
3.	Paddy : Co. 37	(115)	October-January/ February	10 (9%)
4.	Paddy : Co. 33	(105)	October-January/ February	20 (18%)

4.4 Agriculture in the Pre-Canal Irrigation Period:4.4.1 Singloor:

Prior to the advent of canal irrigation (1960), Singloor had three systems of cropping pattern. These were (i) Vayal (tank-wet), (ii) Thottam (semi-wet with well irrigation), and (iii) Manal Kadu (dry).

Long term varieties (6 month) of paddy were cultivated in Vayal and Thottam as a Kalam crop (July-December). Paddy was also sown as a semi-wet crop or dry crop. Millets were sown in Manal Kadu in the Kalam season.

In Kodai season a mixed crop of millets and pulses together were sown, as a dry crop both in Vayal and Manal Kadu. In Thottam cotton, and vegetables were cultivated.

Further, plants for green- manure were grown in the Vayal and Manal Kadu between January to June.

Cattle and Sheep were penned, in the land for manure, then mixed with different soils, and manured with green leaves such as neem and groundnut cakes.

The land was thoroughly ploughed upto 8 stretches. A stretch is ploughing a land twice (both lengthwise and breadthwise. Nanjai (wet land) was ploughed at 7 stretches and Punjai (dry land) was ploughed at 4 stretches.

A good crop mostly depends upon the monsoons. An analysis of various proverbs available still in Singloor, shows the indogenous knowledge about, rain, ploughing, manure etc. , (see Appendix ).

#### 4.4.2 Doubloor:

Agriculture in Doubloor prior to the advent of canal irrigation (1900), was most likely that of Singloor. We have no specific details of cropping pattern at that time, since the present generation had no experience about the pre-canal irrigation period.

#### 4.5 Agriculture in the Post-Canal Irrigation and Pre-Green Revolution Period:

Only Doubloor had the experience of canal irrigation in the pre-Green Revolution period (1900 - 1960). Most of the landowners were Brahmins, Vellalas and Pandarams of Sholavandan

who happened to be the non-cultivating landowners in 1940. They had tenants who belonged to the Kallar, Konar and Nayakkar castes. There were various types of tenancy (see chapter 6). Thus cropping pattern was determined by the non-cultivating land owners and not by the actual cultivators. Brahmin landowners were interested in raising good paddy for self-consumption which is a long term paddy (6 months) like Samba. The Vellalas were interested in commercializing the agriculture and so cultivated short term varieties like 'Aruvatham Kodai' (60 days) and Senkar to have quick yields. They stopped applying country manures and penning etc. Hence the soil was poorly enriched and the yield was diminishing. Similarly the number of ploughing diminished from seven to four. The process of cultivation was very mechanical but quick.

Both the Brahmin and Vellala land owners depended upon tenants, and agricultural labourers which created a sharp demand for labourers. Therefore wages were often raised. To overcome this, native landowners brought labourers from other villages (from dry areas) who worked for a less wage.

On the other hand, when the season was over, the native labourers were left with no employment for long durations. They had to seek work in other villages, where they had to face the enmity of the labourers of those villages. Ultimately in 1950-1955 there was an agreement between the native landowners

and native labourers (both belong to Kallar caste) that the former will not entertain the outside labourers and the later shall work for outside landowners only after completing the work, of native landowners. Thus the native landowners brought the labourers under control.

In the 1940s, 'Bose plough' was introduced to maximize the efficiency in wet ploughing; puddler was also introduced, which minimized the number of ploughings and number of labourers. In 1950s and 1960s there were conflicts between native tenants and absentee landowners, as a result of tenancy legislation. Four Kallar tenants, and one Servai tenant were evicted, and were given a compensation of Rs.5000 per acre. However, the two Nayakkar tenants purchased the land from the Brahmin landowners.

#### 4.6 Agriculture in the Post-Green Revolution Period:

##### 4.6.1 Singloor:

Both Green Revolution and Canal irrigation were introduced in Singloor simultaneously. The tank was filled with canal water irrespective of monsoons. The level of groundwater is increased in the wells. New wells were also constructed, especially in Manal Kadu. The villagers utilized both canal irrigation and Green Revolution without giving up traditional indigenous practises. Traditional form of natural manures are continuously being applied. Sheep

penning is followed. Since the Manal Kadu area is fully occupied even in Kodai, growing green leaf plants has become impossible, but they have been drawn from western ghats and Nagamalai hills. People leave at dawn around 4 A.M., and reach the village by 11 A.M., with bundles of green leaves. A bundle is sold from Rs. 4 to 5 depending upon the quality and quantity of leaves. Neem leaves, Kolinji leaves and Avarai leaves, are paid the highest rates of Rs. 8 per bundle. Similarly turmeric water is still being applied as a pesticide, and in addition, some chemical pesticide, are also applied.

The village has retained the multi crop system. The infrastructure is so convenient that they could cultivate a number of crops viz., paddy, sugarcane, cotton, millets and vegetables. The crop cycle is so systematic that the village agricultural economy always remains balanced. The village also remains self-sufficient in its labour force. Most households use family labour only. Land is tilled by self-ploughing. No tractor is hired. A teacher-farmer has shifted from paddy to sugarcane completely even in Kalam season, and a few other big landowners also have stepped into such ventures.

#### 4.6.2 Doubloor:

Green Revolution was adopted in Doubloor very quickly, by the big farmers and big tenants (54 per cent), as it



assured good yield in a short time. The rich farmers had frequent contact with the agricultural development officers, for advice on seeds, fertilizers and growth. They did not, hesitate to invest money, though it almost doubled, because of the costly pesticides and fertilizers. In the initial years they had a profit of 1:2. But later on the crops were affected by unfamiliar diseases, and situation become worse when irrigation became a problem, along with the non-availability of effective pesticides. The pesticides were by and large 'impotent'. There was an acute shortage of water between 1966 to 1971, due to the illegal tapping of water by the headreach villagers. This resulted in employing watermen, and bribing the irrigation officials which increased the cost of agriculture by another thousand rupees per acre. This affected the middle farmers. The first crop yielded poorly and the second crop became a complete failure in the year 1971. Further the general situation was very tense, that the Chettiyyar family, mortgaged their land and migrated out. The Nayakkars were also planning to do so. Two small Kallar peasants mortgaged their land to the big farmers and become their tenants. Even the big farmers became indebted due to the crop failure, but they were able to manage by taking loans from the bank.

## 4.7 Labour Organisation:

### 4.7.1 Singloor:

Most of the agricultural households of Singloor cultivate their land by themselves. It is because of the ideal size of the land (in proportion to the family members), the multi-crop system, different characters of land (Manal Kadu and Vayal) and other factors. Only the big farmers and the households which engaged in non-agricultural operations employ wage labourers. A considerable section of poor peasants and middle farmers also go for wage labour and thus an exchange of labour is practised.

Table 4.9

#### Labour Organisation in Singloor

Type of labour organisation	Number of households	Percent among landowning households
Fully self cultivating	58	51
Party employing wage labour	32	28
Fully employing wage labour	23	20

The table shows that half of the landowning households are self-sufficient in labour. Moreover a considerable portion of this section (40 households; 69%) also go for

wage labour partly or occasionally.

The second section of landowners engage themselves and also employ wage labourers. They do not go for wage labour.

The third section, comprising of big landowners and the households, engaged in non-agricultural occupations such as education, teaching and clerical jobs, depend fully on wage labourers.

Thus as a whole 79 per cent landowning households actively engage in self-cultivation and the rest employ wage labourers. Thus the internal labour force of the village is fully absorbed all round the year. This is because of the multi-crop system and the land being situated in different sections. 75 per cent of the households have lands both in Vayal and in Manal Kadu as they always inherit it. This enables them to cultivate different crops, which requires organisation of the work at different periods of the year, for an optimal yield and an effective participation of their family members.

Paddy planting is specifically done by the scheduled caste women. The other work is shared by all the castes. All women engage in work.

#### 4.7.2 Doubloor:

Most of the landowning households employ agricultural labourers. Keeping in view the fact that Canal Irrigation

being the sole source of irrigation and the system of cultivation being a mono-crop one, automatically, the urgency of work increases, that even a small farmer has to employ wage labourers. The big farmers and big tenants together cultivate 70 per cent land of the village, and so fully depend on wage labourers, this causes in-migration of outside labourers during peak seasons, even though 55 per cent households of Doubloor are landless labourers as they are insufficient. .

Table 4.10

Labour organisation in Doubloor

Types of labour organisation	Number of households	Percent among landowning households
Fully self-cultivating	10	21
Partly employing wage labour	12	25
Fully employing wage labour	26	54

The table shows that more than half of the landowning households fully employ wage labourers. This section comprises of big farmers, big tenants and medium farmers. Their family members merely supervise the peripheral activities in agriculture.

The second section comprises of small peasants who work themselves in addition to wage labourers.

The first section comprises of poor peasants who cultivate on their own and also go for wage labour. The big farmers and tenants also hire tractors for ploughing and threshing.

#### 4.8 Wage Structure:

##### 4.8.1 Singloor:

Wage labour system in Singloor is organised at two levels. Athai Coolie is the fixed wage for an individual's labour for a fixed time. Kootu Coolie (contract labour) is the wage for a piece of work, determined on the spot, for a group of labourers. The employer controls every individual labourer in the Athai Coolie system, whereas he has no control on an individual labourer in the Kootu Coolie system. Athai Coolie system is practised by those families who partly employ wage labourers whereas Kootu Coolie system is practised by the big farmers in particular, and medium farmers occasionally. Athai Coolie is in operation on normal conditions which needs no haste in the operation of weeding, cotton picking, ploughing etc., whereas Kootu Coolie is practised on works involving mass labour such as paddy plantation, harvesting, and sugarcane cutting.

##### Athai Coolie

There are three types of Athai Coolie. Oru Pootu (one shift) implies to work only in the forenoon (8 a.m. to

1 p.m.), Mathiana Pootu (afternoon shift) implies the work only in the afternoon (2 p.m. to 5 p.m.). And Iru Pootu (two shifts) implies both the above. However, only Oru Pootu is practised by and large. Athai Coolie is different for men and women.

Men are employed on Athai Coolie for ploughing, spade work, sickle work and carrying loads. A ploughman is offered Rs. 12 for Punjai Ulavu and Rs. 15 for Nanjai Ulavu. This is for Oru Pootu. Ploughing is not carried on in the afternoons. A spade worker gets Rs. 6 for Oru Pootu, Rs. 4 for Mathiana Pootu, and Rs. 10 for Iru Pootu work. The same is applicable for sickle work and carrying loads.

Women are employed on Athai Coolie for hand weeding (paddy), hoe weeding (cotton), reaping the corns (millets), cotton picking, applying fertilizer and assisting the men workers. It is Rs. 3 for Oru Pootu and Rs. 2 for Mathiana Pootu, irrespective of the work.

Children are generally treated on par with women, in terms of work and wages.

### Kootu Coolie

Kootu Coolie is fixed on the spot, depending upon the urgency and amount of work. Generally it is practised for the works involving mass labour such as paddy planting, harvest and sugarcane cutting. The wage is negotiated between the landlord and the representative of the labourers.

The Kootu Coolie is fixed on the basis of the size of the land for paddy plantation and harvest. The difference is the form of wage. It is Rs. 50 per acre for planting, and 2 sacks of paddy (200 kg) for harvesting and threshing. Re-threshing is the last task and is paid separately.

The system is different for sugarcane cutting. There are two types of sugarcane cutting. One is for the country-mill which produces Vellam, the country-sugar and, second is for the Town-mill. The Kootu Coolie for country-mill is based on the number of Kopparais (big vessels to boil the sugar cane juice). And for Town-mill, it is based on the weight of sugarcane.

In both the cases a set of labourers cut and carry the sugarcane. In the case of country mill, they have to crush the juice, whereas in the case of Town-mill, they have to load in the lorry. The wages differ according to the distance between the field and country-mill or the field and the lorry.

Male members of the group usually cut the sugarcane fastly, and the female members collect it in heaps. Once the cutting is over the male members bind the canes. Then both carry the cane.

The Kootu Coolie per Kopparai varies from Rs. 7 to 12. A minimum of 10 Kopparais are fixed in a day. The Kootu Coolie per tonne of sugarcane varies from Rs. 25 to 35. The division of wages for an ideal group of men and women is

given as follows:

Table 4.11

Kootu Coolie on Country-mill

	Wage per Kopparai	Division of labour		Total wage for 10 Kopparais
		Men	Women	
Minimum	Rs. 7	2	5	Rs. 70/-
Maximum	Rs. 12	4	8	Rs.120/-

	Men			Women		
	Number of men	Wage per head	Total wage	Number of women	Wage per head	Total wage
Minimum	2	Rs.15	Rs.30	5	Rs. 8	Rs. 40
Maximum	4	Rs.14	Rs.56	8	Rs. 8	Rs. 64

Thus sugarcane cutting is the most lucrative job available for a wage labourer.

4.8.2 Doubloor:

Wage labour is also organised at two levels in Doubloor, viz., Athai Coolie and Kootu Coolie similar to Singloor. But the wages are relatively higher. Punjai Ulavu is not practised in Doubloor. A ploughman is offered Rs. 18, for



Oru Pootu. A spade worker gets Rs. 7 for Oru Pootu, and Rs. 5 for Mathiana Pootu. However, this fluctuates subject to the availability of labourers. The wages for women is similar to Singloor.

Kootu Coolie, per acre of paddy plantation varies from Rs. 60 to 70 and harvesting is done on two phases; the first phase is to reap the paddy and deposit it on the threshing floor; the second is to thresh it. Both are done by separate groups, and are paid separately. The Kootu Coolie for reaping is 2 sacks of paddy (200 kg.) and threshing is  $\frac{1}{2}$  pack (50 kg.) per acre. Tractor is also hired for floor-threshing, which does the job very quickly. The hire per hour is Rs.150/-.

The tractor threshes the paddy of 5 acres in an hour. Thus only big farmers hire the tractor. However, winnowing is to be done manually.

One of the big farmers of Doubloor who owns 11 acres but cultivates 20 acres (on other's names), has employed five farm labourers (4 men and 1 woman). He provides meals and clothes throughout the year and pays them annually. A middle aged (30) Kallar farm labourer is employed along with his wife for Rs.1400/- per year. The husband has to irrigate the crop, guard the house and the adjacent field on normal conditions; and the wife cleans the cattle-shed in the morning, cooks food for the farm labourers, and renders small

help to her master's wife. Another Kallar farm labourer (40) gets Rs. 900/- per year, organises wage labourers, and supervise the day to day agricultural activities. The other two were adolescents belonging to Pallar caste. One is (18) paid Rs. 400/- and the other is (12) paid Rs. 300/- annually. They plough, do spade work and carry loads of fertilizer and paddy etc. These labourers are replaced every two years. Further a steady force of 10 labourers always work in his field on a daily wage basis.

In this chapter we have discussed changes in the organisation of various agricultural activities and practices in Singloor and Doubloor with respect to their different experiences of canal irrigation and Green Revolution. Change in Doubloor is seen to be more abrupt than in Singloor which has retained many of the traditional practices while selectively adopting some elements of the package of Green Revolution.

## CHAPTER V

### SOCIAL ORGANISATION OF IRRIGATION

The agricultural economy of any society is significantly affected by the modes of irrigation. On the other hand, organisation of these types of irrigation is related to the social, economic and political structure of the society, including the social relations of production and their consequences characterised by co-operation or conflict. Analysis of these relations, therefore, demand the study of social organisation of irrigation system. While looking at the overall irrigation conditions prevailing in the two villages under study, we have focused our attention in this chapter particularly on canal irrigation in the two villages in their respective socio-structural contexts.

After a general introduction to irrigation in the first section, section 5.2 briefly outlines the different sources of irrigation at the state and district levels. Various systems of irrigation at the village levels are discussed in section 5.3. The following section 5.4 deals with the irrigation administration and bureaucracy together with the power politics involved. Section 5.5 presents the nature of conflict and co-operation in canal irrigation, in both the villages and finally, the degree of corporateness and the linkages with bureaucracy and politics are highlighted.

## 5.1 Introduction to Irrigation:

Irrigation is the artificial application of water to soil for the purpose of agricultural production. 'The basic source of water is precipitation in the form of rainfall or snowfall. Run off from precipitation drains through streams and rivers, or collects in surface depressions forming tanks or ponds. Water of streams and rivers is stored in reservoirs or is diverted directly through canal systems for irrigation. A part of the rainfall is stored as groundwater.... when rain falls, a portion of it soon evaporates from the ground or the vegetation that may intercept it, another portion infiltrates into the soil and the rest flows away over the land surface as run off' (Michel, 1978: 1). The water stored on surface and ground is supplied to supplement rain water; the various means, of surface irrigation are canals, diversion channels, and water courses, their sources being dams, tanks, ponds and rivers. Wells are source of ground water irrigation and water is lifted either manually or with the help of animal or electric/oil power.

There are three important factors in estimating irrigation requirement and planning irrigation systems which affect irrigated agriculture. They are evaporation, transpiration and consumptive use. Evaporation is the

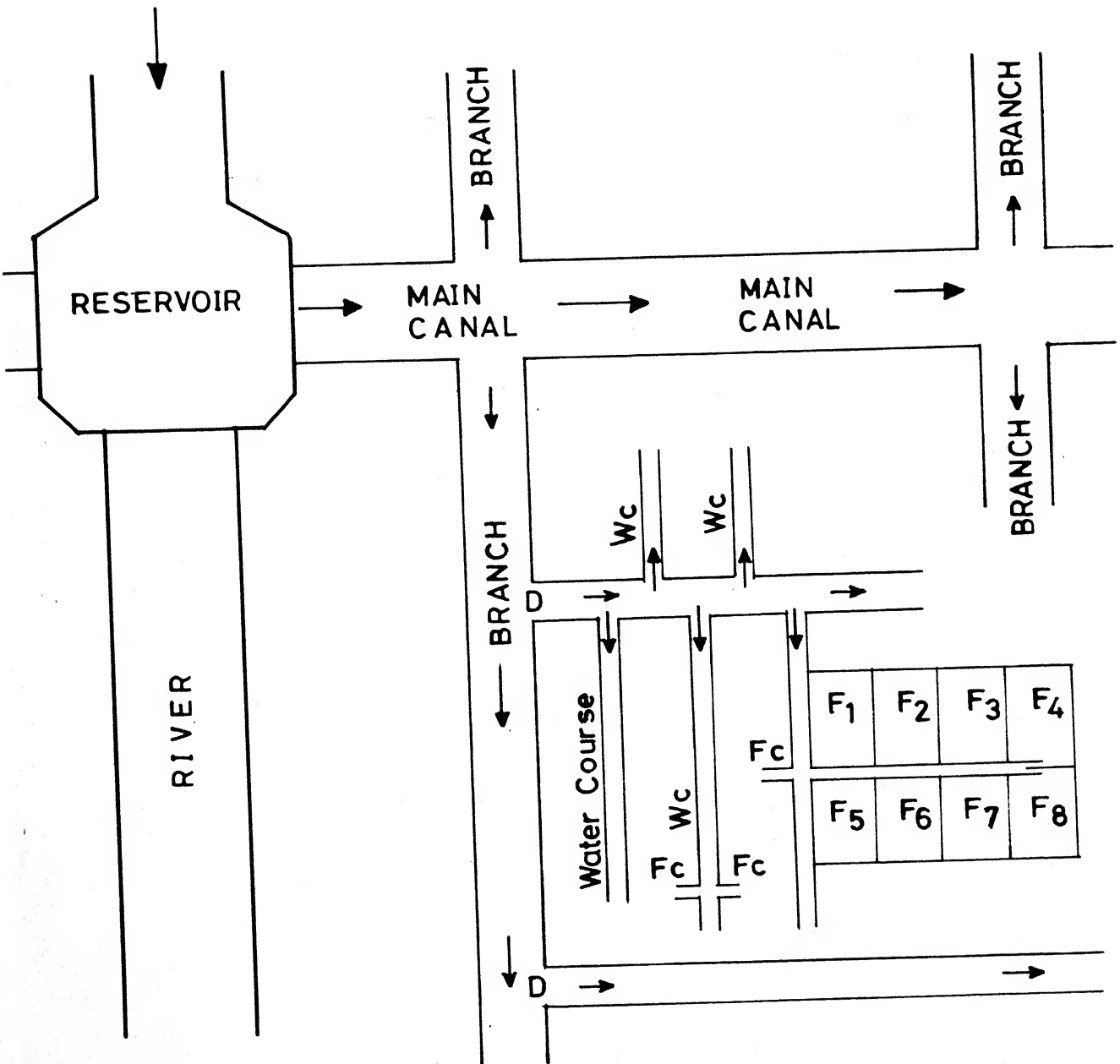
process by which a liquid changes into gas. This process is one of the fundamental components of the hydrological cycle in which water changes to vapour through the absorption of heat energy. Transpiration is the process by which water vapour leaves the living plant body and enters the atmosphere. It involves continuous movement of water from the soil into the roots through the stem and out through the leaves to the atmosphere. Consumptive use is the total quantity of water transpired by the plants during their growth through evaporation and transpiration. Other factors being equal, the stage of growth of the crop has a considerable influence on its consumptive use rate. The consumptive use of water for a season is calculated and called as seasonal consumptive use. This is used to evaluate and determine the seasonal water supplies for irrigation. The average daily water use rate during the highest consumptive use of the season is called as peak period use rate. This is the design rate to be used in planning an irrigation system. Proper implementation of this knowledge would not only economise the water consumption but enhance efficient water utilization. But due to the inefficiency of the concerned officials and misuse of power for vested interests, the bureaucracy not only fails to serve the purpose, but also becomes a source of problems and conflict.

Tanks and canals are the main sources of surface irrigation. Generally, tank irrigation systems are smaller than canal systems, covering a village or a few villages. Canal irrigation covers much larger command area<sup>1</sup> than a tank or a well. Surface water stored in reservoirs is distributed for irrigation through a network of canals<sup>2</sup>, distributories<sup>3</sup>,

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1. Command Area is the area covered under a canal. Gross Command Area (GCA) is the total area which can be irrigated by a certain channel or project. It includes the area covered by roads, culverts, uncultivable area, villages etc. Cultivable command Area (CCA) is the portion of the GCA, which is culturable or cultivable. The CCA is equal to GCA minus the unculturable area in the GCA (Michel, 1978: 36).
  2. Canals are of two types: They are Main canal and Branch canal. Main canal takes its supply directly from the reservoir or the river. The size of the main canal depends on the size of the irrigation system. The capacity of main canals in India usually varies from 280-425 cu. m. per second. Direct irrigation is usually not carried out from main canals (Michel, 1978: 29). Branch canals are 'branches', which take off from the main canal and carry the water to different major parts of the irrigated areas. Branch canals generally carry a discharge from 4.0 to 8.5 cu. m. per second. Direct irrigation is generally not done from large branches. However, smaller branch canals may be provided with outlets for delivery of water to the fields (ibid.).
  3. Distributories are also of two types. They are Major distributories and Minor distributories. Major Distributories take off from branch canals and sometimes from main canals and supply water to outlets or minor

contd...

Figure 5.1  
The Canal Network



Wc - Water Course  
Fc - Field Channel  
D - Distributory  
F<sub>8</sub> - Fields.

water courses<sup>4</sup>, and field channels<sup>5</sup> which vary in their water carrying capacity and orientation with respect to the headworks (see Figure 5.1). The government constructs and maintains canals and distributes the water till the outlets<sup>6</sup>. The cultivators maintain the water courses and field channels below the outlets. Thus, canal irrigation covers a larger command area, involving a greater number of cultivators resulting in more complexities in maintenance, allocation and distribution aspects both technically and socially. Hence the importance of a study on the social organisation of canal irrigation.

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(footnote 3 contd....)

distributories. They generally carry discharges between 0.75 cu. m. per second to 5.5 cu. m. per second. Minor Distributories take their supply from Major distributories and supply water to the outlets. The carrying capacity of minors is usually less than 750 litres per second (ibid: 29-30).

4. A 'water course' passes through the common land and is maintained by the farmer and not by the Government (ibid: 35).
5. Field channels carry water to the individual fields from the water course. In irrigated rice areas of the south, however, field channels are normally absent as the conventional practice is to irrigate from field to field (ibid: 35-36).
6. Outlets are the exits of canal water, supplying water to the water courses and/or field channels, fixed at suitable points of distributories (ibid: 30).



## 5.2 Irrigation in Tamil Nadu and Maḍurai District:

### 5.2.1 Tamil Nadu State

The total area of Tamil Nadu is 13,001 thousand hectares; the gross area irrigated is 3,819 thousand hectares and the net area irrigated is 2,873 thousand hectares. The net area irrigated by various sources is given in Table 5.1.

Table 5.1

Net Area Irrigated by Various Sources

Sl. No.	Sources of irrigation	Area irrigated (in thousand hectares)
1.	Government canals	919 (31.98%)
2.	Tanks	842 (29.30%)
3.	Wells (including tubewells)	1069 (37.20%)
4.	Other sources	43 (1.50%)
Total		2873

Source: Statistical Hand Book, 1980: 15.

A total of 19 reservoirs provide water for irrigation to various districts of Tamil Nadu.<sup>7</sup> A total of 2,392 canals

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7. Some of the important reservoirs are Mettur, Bhavanisagar, Amaravathy, Sathanur, Manimuthar, Papanasam, Poondi, Periyar, Vaigai, Manjalar, Pechiparai and Perunchani (ibid: 163-165).

covering a distance of 11,501 km., and a total of 47,734 tubewells, 16 lakh wells and 38,297 tanks, are the main sources of irrigation in Tamil Nadu (ibid: 152-155). Canals of Tamil Nadu account for 7.3 per cent, wells 6.8 per cent, tanks 22.4 per cent, and the other sources 1.4 per cent to their respective all India figures.

According to a publication of the Ministry of Irrigation, 'The ultimate irrigation potential of the State is estimated at 3900 thousand ha. ; 1500 thousand ha. from major and medium irrigation schemes, 900 thousand ha. from surface water minor irrigation schemes and 1500 thousand ha. from ground water minor irrigation schemes'<sup>8</sup> (MWIP, 1982: 20).

#### 5.2.2 Madurai District

The district is benefitted by a total of 203 canals covering a distance of 394 km., 235 tubewells, 1.5 lakh wells, and 5,022 tanks. These account for 8.5 per cent, 3.4 per cent, 0.5 per cent, 9.2 per cent and 0.2 per cent to their respective

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8. 'The irrigation works are classified in the categories of major, medium and minor irrigation project, based on financial limits on expenditure involved in the schemes. Major projects are those costing more than Rs. 50 millions, medium projects cost between Rs. 50 million and Rs. 2.5 millions individually. The minor schemes consist of irrigation tanks, canals, diversion works, anti-sea intrusion works and almost all the ground water schemes' (Michel, 1978: 23).

state figures. The district is benefitted by six reservoirs (SHB, 1980: 152-155). The net area irrigated is 41 per cent of the net area sown in the district. The major irrigation systems which benefit the district are Periyar, Vaigai and Manjalar. The following section discusses the Periyar- Vaigai project which benefit the villages undertaken for study here.

### Periyar-Vaigai Canal Irrigation

According to the District Gazetteer (Madurai),

"The agricultural prosperity of the district has been considerably improved since the completion of Periyar scheme. The idea of diverting the water of the Periyar (big river) which flows down the western slopes of the ghats through the Travancore country to the Arabian Sea and utilizing it for irrigating the arid tracts of Madurai, is more than one hundred and fifty years old. It was suggested first, as early as, 1798 by Muttu Arula Pillai, the Prime Minister of the Raja of Ramnad, but it fell through for want of funds, though 'the twelve intelligent men' he seems to have sent to enquire into its possibilities reported (1808) after a cursory examination that the scheme was impracticable. The matter, however, continued to be discussed until in 1867 it was brought forward by Major Ryves, R.E., in a practical form.... It was sanctioned in 1884 and the work was begun in 1887 and completed in 1895.... The project was opened in October 1895 by Lord Wehlock, the Governor of Madras." (Gazetteer, 1960: 150-153).

Thus, 'the Periyar Dam Project was conceived in the latter half of the 19th century and executed across an inaccessible gorge in Periyar Valley (Kerala State) from 1887 to 1897.

Periyar is a west flowing river, but the water so impounded in the Periyar Lake (capacity 15,622 mcft) was diverted to the drought affect plains of Madurai district of Tamil Nadu, through a tunnel of one mile. After irrigating about 5,665 hectares (13,000 acres) in the Cumbum Valley, the water impounded in Vaigai Dam which was completed in 1958 (capacity 6,878 mcft). The releases from Vaigai Dam are picked up at Peranai Regulator<sup>9</sup> about 20 km. down of Vaigai Dam. From Peranai Regulator a canal takes off on either bank' (Manglick, 1981: 1).

The Periyar Main canal (PMC) takes off from the left bank and commands an area of 52000 hectares (1,30,000 acres). The Tirumangalam Main Canal (TMC) takes off from the right bank and commands an area of 5,500 hectares (13,675 acres). Thenkarai channel takes off at a point 2 km. down to the Peranai Regulator. Its command area is 3428 acres (see Figure 5.2). The system of water distribution is continuous flow. It is not rotational as we find in North Indian canal system.

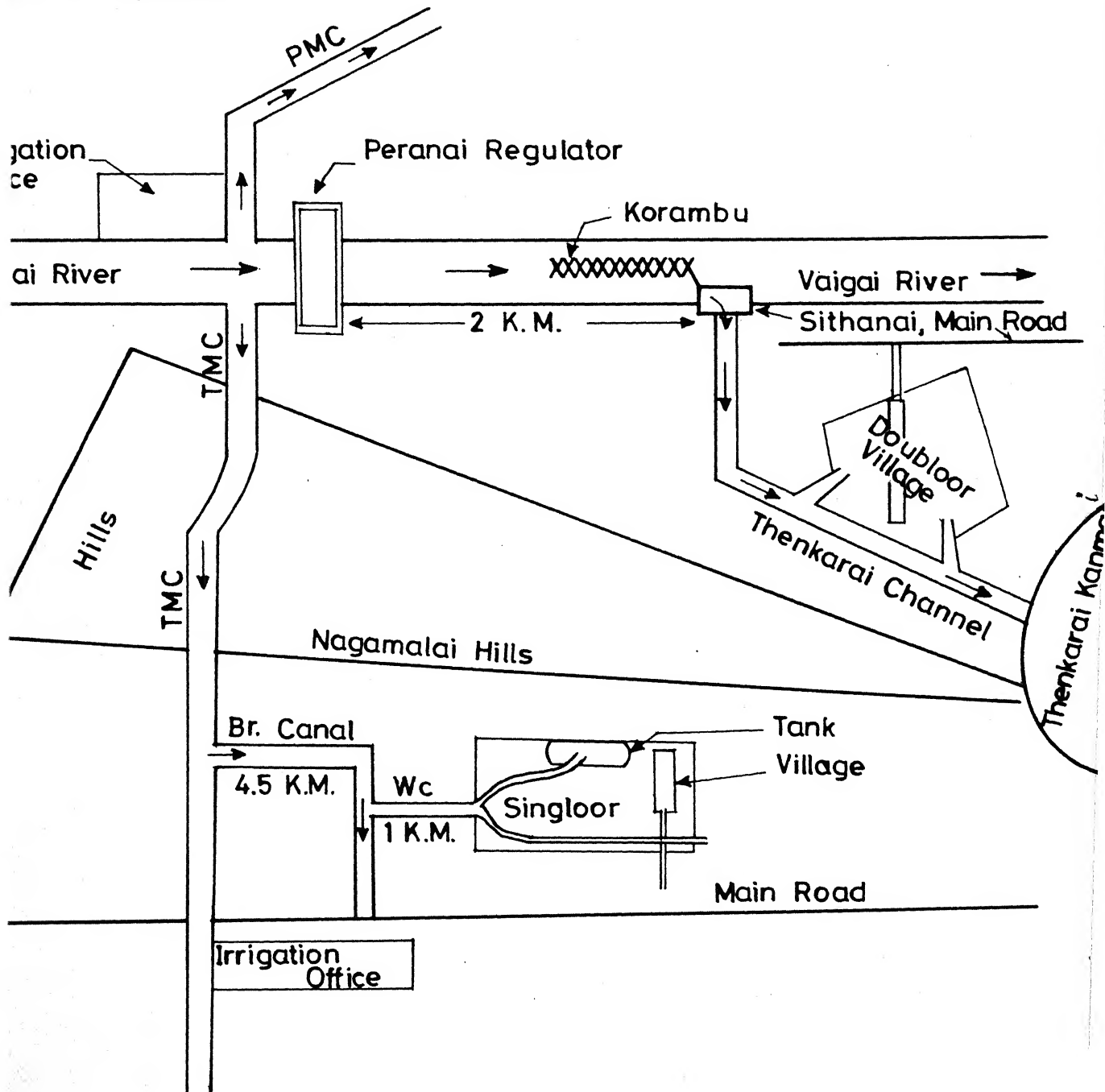
In seventies, a discussion was initiated for the modernization of Periyar-Vaigai project by the government.

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9. 'Peranai' literally means 'Big Dam' though it is only a regulator.

Figure 5.2

Location of Singloor and Doubloor in Periyar-Vaigai Canal System.



The scheme (modernization of Periyar-Vaigai project) was also referred to the World Bank who were attracted by the merits of the project. However they desired that total modernization may be undertaken including lining of all channels in the system down to 10 hectare limit' (to a limit of 10 hectares) besides improvement of tanks supply channels, operation and maintenance of roads, connected village roads, procurement of modern hydrological equipment, re-organisation of operation and maintenance staff, staff training, monitoring programme and installation of VHF communication system. The cost of the project to cover all these improvements was assessed as Rs. 4104 lakhs with a provision of Rs. 792 lakhs towards cost escalation. Development credit agreement was then signed between India and IDA in June 1977 to provide a credit of U.S. Dollars, 23 million (credit No. 720 IN) (Manglik, 1981: 32-33).

Manglik made a technical study of Periyar Vaigai project and brought out certain recommendations. He aspired for the enforcement of 'warabandi system' as followed in North India. He suggested that the canal engineer should be made responsible for distribution of water and imposing water rates. 'Efficiency in the distribution and use of water for maximising crop production can be achieved by making the canal Engineer responsible for not only bringing water up to the outlet/sluiice but also by charging him with the onus of its proper distribution amongst the ryots entitled to receive it. He should also record all irrigated areas, fieldwise, for each crop and prepare Jamabandhis for irrigation charges..... and the collector would take care of the collection

as hitherto' (ibid, 1981: 29-30). He is also authorised to collect penalty charges for irrigation. However these were not implemented when we were doing our fieldwork, atleast in our area.

### 5.3 Irrigation at Village Level:

#### 5.3.1 Singloor

Prior to the advent of canal irrigation (1960), lands in Singloor were irrigated through a tank and a few Kamalai wells,<sup>10</sup> the Kamalai wells being approximately forty. Vayal area, roughly one-third of the village land (80 acres), was irrigated by the tank water for Kalam crop only. Thottam area (semi-wet), a part of Manal Kadu, roughly forming another one-third was irrigated through Kamalai wells. Rest of the land had no source of irrigation, and so only dry crops like millets were cultivated, depending upon the monsoon.

#### Tank Irrigation

In the past, the only source of water for the tank was precipitation. However, the water stored did not last for

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10. Kamalai is the traditional mode of irrigation in which a single person lifts the water with the help of bullocks. A tin vessel, having a capacity of about 100 litres is sent into the well, connected by two long ropes to the bullocks, through two pulleys. The other side of the vessel has an attached leather pipe to exit the water out. When the water is filled in the vessel, it is drawn to the surface level and by pulling a rope, the water is released from the vessel.

more than four months whether used for irrigation or not, due to evapo-transpiration and water intake.<sup>11</sup> Lack of continuous precipitation made dependence on tank irrigation beneficial.

Tank was the only source of water even to the wells. As for the maintenance of this tank, a committee of five persons, called Kanganam had the charge. This committee was represented by Naidu, Kallar and Paraiyar castes as follows. The chief was the priest of the temple (Naidu). Of the 3 Kallar representatives two from the descendents of MK - the Pangalis and one from Maman-maccunan (KMM). The fifth member was from Paraiyar caste. However, four members of Pallar caste were employed as Madaiyans (sluice- guards), to guard the tank-bund and water. In case of any disaster (breach in the bund, or overflowing etc.) the Madaiyan would start beating the drum, and on hearing the drum, people would collect the necessary implements (like spade, basket etc.) and run to the tank. Such was the village corporateness in terms of water. Further, the Kanmai- Maramathu (tank- repair)

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11. The movement of irrigation water from the soil surface into and through the soil is called water intake. It is the expression of several factors, including infiltration and percolation (Michel, 1978: 482-483). Percolation is the downward movement of water through the pores in the soil. Infiltration is similar to percolation but occurs when there is difference of surface level.



was carried on every year and a separate fund was maintained for that. The fund was collected as Kuruni paddy per Kani land (roughly 6 litres<sup>12</sup> of paddy per 0.6 acre). To aid the economic use of water, any wastage or misuse, was brought to the village council by the committee and the guilty were punished accordingly by the council.

To sum up, agriculture in Singloor was solely dependant on monsoon, and people understood the maximum utilisation of the available water. With the introduction of the canal system, the tanks received water from the canal in addition to precipitation, thus increasing its supply for another couple of months. The canal, thus becoming an indirect source of irrigation, has improved the utility of the tank and in turn affected the pattern of agriculture.

#### Well Irrigation in Singloor

Earlier, the Kamalai wells, were not more than 10 metres in depth, which too went dry when the monsoon failed. Later canal irrigation enabled to raise the ground water level, leading to an increasing number of wells, some of the Kamalai wells were converted to pumpset wells. This increase in the number of wells is partly due to the various government

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12. Paddy here is measured in volumes unlike other areas where it is measured by weight.

programmes, which extended loans through land development banks, as an effect of Green Revolution. The distribution of wells in 1982 is given in Table 5.2.

Table 5.2

Wells and Landsize Categorisation, 1982: Singloor

Sl. No.	Land categories (in acres)	Pumpsets (i)		Kamalai (ii)		Total (i) + (ii)	
		House-holds	Number of pump-sets	House holds	Number of Kamalais	House holds	Number of wells
1.	0 - 1.00 (42)*	0	0	10	8	10	8
2.	1.01 - 2.50 (41)*	9	6	21	21	30	27
3.	2.51 - 5.00 (25)*	19	16	9	9	28	25
4.	5.00 + (5)*	11	6	0	0	11	6
Total (113)		39	28	40	38	79	66

\* Figure in brackets represents total number of households in the land category.

The first category comprises 42 small peasant households who go for agricultural labour and has only 8 Kamalai wells. The Kamalai wells, smaller in size and depth, go dry in peak summer. All the 8 households belong to the Kallar caste. Among the remaining 34 households 26 households are Kallars, six are Pallars and two are Paraiyars. All these 34 households use water from canal and tank. Among the 8, two wells are

shared by brothers and six belong to independent households.

The second category has a total of 27 wells. All the six pumpsets, and all but three Kamalai wells are owned by Kallars. The three Kamalais are owned by Paraiyar caste. While three pumpsets are 'joint', which are shared among brothers, and the other three are independent.

The third category has a total of 25 wells. In this category pumpsets are more than Kamalai wells. Out of the 16 pumpsets, one belongs to Naidu household and the rest are of Kallars. Out of the 9 Kamalai wells, six belong to Kallars, and three belong to Paraiyars. Three pumpsets are jointly owned and shared.

The fourth category comprises four Kallars and a Naidu household. The only household that owns 10 acres is that of a Kallar who installed 2 pumpsets in a single well, which is bigger in size and depth. The Naidu's pumpset is shared amongst the other Naidu households.

To sum up, canal irrigation and other socio-political factors led to the emergence of the middle category (i.e., land owner with 1.1 - 5.00 acres). There was a sudden increase of well in this category. While the second category construct new Kamalai wells, the third category converted the Kamalai into pumpsets.

With these developments, the village has become self-sufficient in agriculture. Since it has alternate sources of irrigation, canal irrigation did not pose any specific problem. Nevertheless it has resulted in a rise in the intensity of cultivation and in the rise of land value.

Table 5.3

Castewise Ownership of wells in Singloor

Sl. No.	Castes	Land owning household	Wells		
			Pumpsets	Kamalais	Total wells
1.	Naidu (6)	6	2	2	4
2.	Kallar (99)	95	26	32	58
3.	Vannan (4)	0	0	0	0
4.	Pallar (15)	6	0	0	0
5.	Paraiyar (31)	6	0	4	4
Total		(155) 113	28	38	66

88 per cent wells belong to Kallars who are merely 64 per cent among the total households.

Regarding Pallars, their size, of the landholdings is very small to construct wells.

Amongst the Paraiyars, the second dominant caste of the village, there are only six landowning households, among

which four constructed Kamalai wells.

### Canal Irrigation in Singloor

Singloor is irrigated by Tirumangalam Main canal (TMC) which was constructed in 1960. TMC takes off from the right bank at Peranai Regulator and flows towards south (Figure 5.2). It passes through and irrigates the taluks of Usilampatti and Tirumangalam, both being dominated by the Kallar caste. Singloor is situated, at a distance of 6 km in the east from TMC. A Branch canal departs from TMC, flows to a distance of 4.5 km. towards east and turns south without touching Singloor. A water course of 1 km. proceeds from the branch canal towards Singloor, and splits into two, one feeding the tank (north), and the other the Manal Kadu area of the village (south).

Water release is controlled by the section office of TMC, which is situated at a point where the TMC and the main road (Madurai- Usilampatti) meet, which is approximately 6 km. to the west of Singloor. An Assistant Engineer resides here along with a team of subordinates. The water is released in TMC from 1st June to 30th September. It is basically for a single crop of paddy. But in practice, it varies depending upon the monsoon and the level of water at the Vaigai Dam. However, if the crop needs water even after the closure, it is provided under TMC, according to the engineer in charge.

He quotes the Rules for water-regulation of Periyar-Vaigai system as, 'whenever there is demand for the ayacut under TMC even after closure, for crops which might otherwise die and if such supply could be spared without affecting other legitimate interests the E.E. shall report the fact to the collector requesting him to get order of Government to allow such supplies'.

With the advent of canal irrigation, the tank in Singloor is no more dependent upon precipitation. It receives a continuous supply of water through the canal till October and the north-east monsoon supplies water after that. Thus in a good monsoon year, the tank remains with water till January. Hence paddy and sugarcane are grown in the Vayal area.

Manal Kadu, along with Thottam area, is also irrigated by canal. Wells are full with water during June to September due to water intake of the canal water. Hence, those who missed the canal water by chance, had the opportunity of supplementing it through well water. Partly because of this reason, new wells were constructed. Loans were offered for pumpsets during the DMK government (1967-72). Thus many Kamalais were converted into pumpsets. Most of middle category have had wells which enabled them to cultivate irrigated cotton crops. The new variety of cotton crops

introduced by Green Revolution yielded lucratively, and they repaid the loan in the next five years.

Thus by virtue of having multiple sources of irrigation and multi-crop culture, Singloor households have entered into the regional economy.

### 5.3.2 Doubloor:

#### Well Irrigation

Doubloor, the second village had been irrigated by Thenkarai Channel (TKC) since 1900. There was no tank or well before that. There were not even Kamalai wells either prior to or after canal irrigation, till 1950. It was only in 1950, Velu Thevar the biggest landlord, owning 16 acres dug a well and installed a pumpset. The second well was constructed by Anbu Konar who owns 3 acres holds four acres on lease. In both these cases, well water is used to supplement canal water especially in the upper level patches of land, and not for cultivating a third crop. Later in 1980 two more wells were constructed.

Doubloor since the beginning of the present century received the canal water for part of the year and so only paddy was cultivated for that part of the year and the land remained fallow in the rest of the year. Therefore there is no flexibility to change the crops like in Singloor.

Hence there developed the single crop culture. The probability of using the well water during Kalam period is very rare. So landlords like Velu Thevar and/or big tenants like Anbu Konar would go for a well if they find it absolutely necessary. It was only in 1980 the other two wells emerged, because of the water scarcity in the previous years and the resultant crop failure. Moreover practically, digging a well in Doubloor costs much more than it would in Singloor because of the constant overflow of water. Walls around the wells have to be given solid support so that it can withstand the constant overflowing of water. Therefore all cultivators could not afford to construct a well.

To sum up, agriculture in Doubloor was solely dependent upon canal water, contrary to that of Singloor, and the people therefore did not have an idea of maximum utilisation of water. The existing landowning structure has always contributed to this. Such a rigid system of dependence on a single source of irrigation caused much conflicts.

### Canal Irrigation

The Thenkarai channel (TKC) irrigates sixteen villages in all. The first 10 villages receive water directly from the channel. The channel ends in a Kanmai (tank). The remaining 6 villages receive water through distributories from the Kanmai. However the 10th village (Doubloor) followed



by the remaining 6 villages, form the tail-end villages and face constant water scarcity.

Doubloor is irrigated through 3 distributories of TKC (see, Figure 3.2). The first is called 'Mettu Madai' (distributory situated in the upper level land), which is the only source for all the upper level lands of Doubloor, approximately 50 acres, and its neighbouring village, Mettupatti, approximately 30 acres (see, Section 5.5.2, referred as  $D_2$ ).

The second distributory  $D_3$  irrigates the lower level lands of Doubloor (eastern part), approximately 40 acres, which are mainly dominated by big landlords.

And the third distributory  $D_4$  irrigates the lowest parts of Doubloor lands approximately 20 acres, and the lands of other village. This, third distributory's problem is inundation of land and not scarcity of water. The entire 20 acres, is owned by two big Kallar farmers of Doubloor.

Doubloor solely depends upon canal irrigation. Some of the big landowners employ watermen to irrigate their land for a full crop. The waterman's wage is fixed even before the crop grows. The wage is in kind, which is decided according to the size, level and distance of land from the canal. The minimum wage is one bag of paddy (approximately 75 litres), and the maximum is one-and-half bags of paddy

(approximately 105 litres) per acre, per crop. The waterman system, exists mostly in the tail-end areas where the water problem is acute. The security of waterman's job is conditional and provisional. He loses his job if he fails to fetch water, or if water is easily available.

The system does not exist in Singloor but there are 16 watermen in Doubloor. Two of them were landowning peasants in the past, but now are landless. All but two belong to the Kallar caste; one is a Nayakkar and the other a Servai.

The origin of this system is not exactly known. But this could be a revised version of the old 'Neer Katti' system, in which 'Pallars' were employed as the common irrigators for the whole village. However they did not irrigate for individual farmers and their wages were not fixed unlike the modern 'watermen' but came from the village common fund.

The organisation of irrigation is major concern of peasant families in Doubloor. In an ordinary peasant family, the wife sits at the field Vamada, the adolescent son takes care of the watercourse, and the father passes the water from the distributory. Only then the land could be irrigated, at the individual level. In this process they will have to deal with the musclemen of big farmers, and other competitors

at the watercourse and distributory levels. The control over the canal water is more necessary than Singloor. Further the problem is aggravated due to the difference in the surface levels. The canal itself is not properly lined, which enables the upstreamers to misappropriate water through illegal tapping. When there is conflict with the outsiders, it is a 'common problem', the entire village people unite for the common purpose. This is the difference between Singloor and Doubloor. Singloor is always corporate whereas Doubloor is corporate only when there is an external threat. Till then, the stronger is the winner.

Doubloor is first of the tail-end villages, and so comparatively less affected than the tail-end villages. However, it is also a leading village in the Thenkarai Kalvai Sangam. Doubloor had the honour, of getting vice-presidentship of the Sangam twice. It also participates in the construction of Korambu at Sithanai along with the other tail-end villages. Two guardmen of the Sangam belonging to Doubloor are vigilant about the illegal tapping around Doubloor.

There are 18 distributories in Thenkarai channel and another 8 in the tank (altogether 26). The channel is not lined and is a mud channel. Most of the sluices have no shutters, which is blessing to a few, and a problem to many.

They are either broken or completely open, which leads to a continuous misappropriation of water. The entire channel (approximately 8 km.) is infested by encroachments, breaches in the bund, and illegal tapplings of water through Korambus, thoombus, kamalais and pumpsets. These are ignored by the irrigation department. It is the tail-end villagers who always repair the bunds, korambu etc. They raise a huge amount of fund to spend over this. There were conflicts between the tail-end villages and the headreach villages.

An organisation was formed in sixties called the 'Thenkarai Kalvai Sangam', mostly comprising the big landowners of the tail-end villages to bring the water till the tail-end. The Sangam consisted of the big landowners of Brahmins, Vellalas and Kallars castes who were able to go upto the political and government machinery, to get the water to their lands. They mobilised middle and poor peasants to gain 'mass support', to get thousands of signatures and show big gatherings. But when the water reaches the border of the village, they use their musclemen and other techniques to misappropriate the water. This will be shown through the case studies from Doubloor later on.

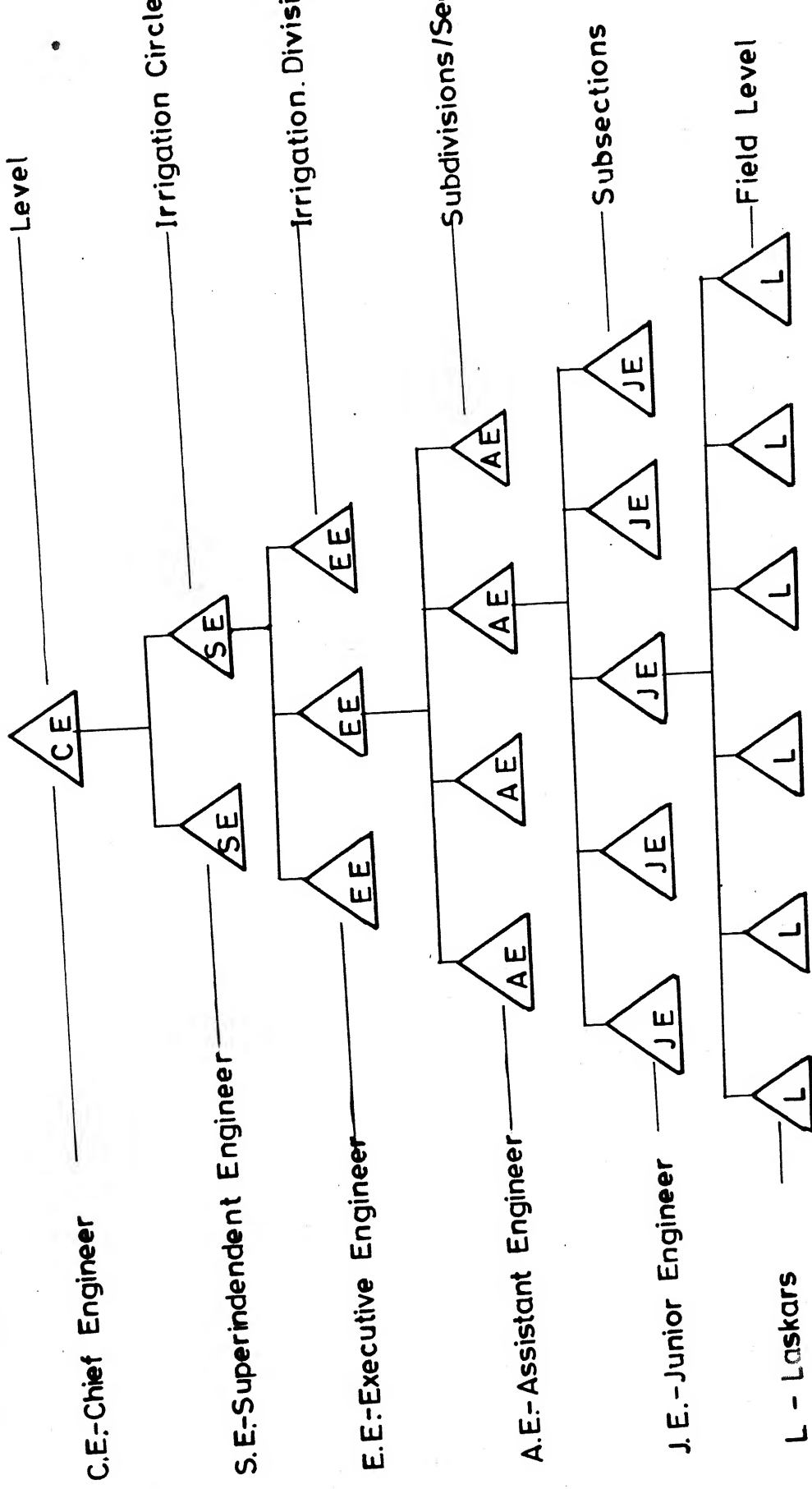
## 5.4 Village, Irrigation Bureaucracy and Politicians:

### 5.4.1 Irrigation Administration

As per the standing rules, the Executive Engineer (EE), Periyar Division is authorised to draw water from the Periyar Lake according to the requirements and demand for irrigation during the single crop and double crop periods. If the EE finds it essential to draw more than the supply permissible under the rules especially to prevent loss of seedlings or to save standing crops, he can draw the extra supply in consultation with the collector.

The chief Engineer is at Madras. The office at Madurai (from where Executive Engineers operates) controls all the section offices, of respective canals. Section offices are situated at suitable points on the canals. An Assistant Engineer is the head of the each section office. He has to intimate the daily and weekly development of the water required and released, to the head office. There are Junior Engineers and/or section officers to assist him. They go for regular patrolling and act as a liaison between AE and laskars. The laskars are at the grass root level, who distribute water upto the field channel. The laskars do not have engineering knowledge; they operate as contact men between the engineers and public (Figure 5.3).

# Organisation Chart of Irrigation Department.



A weekly report called, 'Cultivation Progress Report' is prepared and is sent to the Head office. This report carries the details regarding the amount of water released from the canal through distributories, the amount of irrigated and to be irrigated lands, the stages of the crop etc. Simultaneously the engineers are supposed to calculate the seepage, evapo-transpiration, the consumptive use, the seasonal consumptive use and peak period use rate. But in practice, it is done arbitrarily and approximately. The public are not aware of this method and besides there is no system of checking on the officials. The gap between assumed calculation and real demand of water creates a conflict between officials and farmers. In turn, this results in conflict among farmers and between the officials and farmers.

An Assistant Engineer explained this problem, that they are not allowed to perform what they have to do. On the one hand they are pressurised by their higher officials, and on the other by the local politicians. If they strictly followed the rules, they may have to lose the job, or get transferred to distant places. They are treated by their superiors only as agents to be called to the Head office, to do some work which is in no way related to their position. They cannot say 'No, it is not my duty'. Occasionally a member of the Legislative Assembly demands for immediate release of water

for a particular area where 'his men' or he himself belongs. Refusing this one may incur his anger and leads to serious repercussions.

Secondly, the laskars do not operate properly. They act arbitrarily in the distribution of water without notifying or informing the higher officials. They release water to those, who bribe them. They do not attend to their duty, but look after their private business. In turn they keep somebody else to do the job. That somebody is his son or a friend or a distant relative.

#### 5.4.2 Farmers' Associations, Irrigation Bureaucracy and Politicians:

##### Thenkarai Kalvai Sangam

The origin of the association is not known, but we have records from 1965. The President, treasurer and other executives of the Association are from the tail-end villages, but it has representatives from all other villages. The objective of the association is to solve irrigation problems. It does not deal with any other matter of agriculture. The office bearers of the Sangam are rich farmers, irrespective of caste. The main functions of the association so far, are, Korambu Kattuthal (construction of Korambu) at Sithanai, sending petitions to the government officials regarding the release of water. The fund is collected from all the villages



in general and tail-end villages in particular, through auctioning the 'right' of collecting 'village taxes', over the paddy and paddy hay. The 'village taxes' are collected as follows:

Every bag of paddy sold from the village - 10 paise each.

Every cart load of paddy hay sold from the village - Rs. 1 each.

Every lorry load of paddy hay sold from the village - Rs. 5 each.

Tenders are called for from interested persons to collect the village tax from every village. The entrance fee is Rs. 25/-. The auction is orally conducted. The highest bidder gets the right to collect the tax for one year (from Aipasi 1 to Puratasi 30th, i.e. October 15 to October 1).

Korambu is a temporary bund raised to block the waterflow and divert it in a desired direction. Since the wall at Sithanai (approximately 200 meters) sunk and no remedy was taken by the government, the cultivators construct the Korambu whenever necessary. The Thenkarai Kalvai Sangam (TKS) takes the initiative in this matter. Through drum-beater the information of collapsing of Korambu is passed on to the people. Hearing this, a set of people collect to do the job. The Sangam provides them with food, betel leaves, and beedi-cigarettes on these occasions. A complete Korambu construction takes two days. Such attempts vary from 25 to 50

times in an agricultural year. It comes even twice in a week during rainy seasons, since the Korambu is demolished due to floods in the river. Similarly the entire channel is also cleaned by the people. Generally, the tail-enders only participate actively. But the lion share of water goes to the middle and top rung villages.

The Sangam supervises the flow and distribution of canal water. It employed a set of waterguards, messengers and watchmen. The waterguards are the cyclists who go along with the channel and supervise the water-flow, water release in distributories etc. The watchmen are positioned at strategic points where large scale misappropriation of water is suspected. The watchman at Sithanai passes the message that the Korambu has collapsed, and the messenger with the consent of Sangam - executives, tom-toms the matter to the villages.

From time to time the Sangam made appeals to the government regarding various irrigation problems. In fact from the very beginning the Sangam appealed to the Government to repair the Sithanai, to construct concrete channel and sluices, proper patrolling, and action against encroachments (coconut plantation) and illegal tapping of water. Our analysis on the available records of the association shows that not less than 50 communications were from the side of association, and no communication from the other end.

Irrigation in Thenkarai channel became a problem, only during the sixties. By that time, Green Revolution was on and there was a new canal TMC which shared the water from the same source that of TKC. The price of the land was rising sharply. The 'puramboke' (Government land) lands were encroached wherever it acquires value (value of the land increased in terms of availability of water) lands near the channel were encroached. Coconut trees were planted. The sluices were broken for want of more water.

Anarchy was the rule in 1965. Breaches were made in the bunds. Water was blocked and diverted by constructing Korambu inside the channel. A petition by the tail-enders, to the collector (19-7-65), reveals that there were illegal tapping of water almost along every furlong. In many places of the channel 'Kamalais' were in operation to bail out the water directly from the channel, to the unauthorised upperlevel - Punjai - lands. And 'thoombus' (small pipes) were inserted underneath the banks to steal water for low level 'punjai' lands. Even pumpsets were in operation in bailing out the water. 'Thalai' (a specific plant which grows in riversides) was purposely grown inside the channel to delay the flow of water and to enable the misappropriation. It was alleged that the department of irrigation did not repair the sluices, breaches of bunds, and derelicted its duty of patrolling. There

were repeated pleadings from the tail-enders to arrange for a proper water impounding device - a permanent Korambu and a silt remover at Sithanai.

The condition remained much the same in 1970. A telegram was sent on 2nd July to the Madurai collector informing that even after the lapse of one full month since the reopening of Periyar the water did not reach the area and therefore even the seed beds could not be raised. The letter pleaded for immediate solution to the problem. Another appeal was put forth in June of next year (1971) that they need police bandobust as they face confrontations with the upstreamers. When they tried to clean the channel as a preliminary task of every year, the encroachers objected to it.

The water was released on 5th July but it did not reach the tail-end till 16th August. Agriculture was affected. This was informed to the officials, as this was the default of the irrigation department in neglecting inspection since 1965. They pointed out that "from 1965 onwards, we are suffering from similar hardships, due to the late supply of water, after several repeated representations, resulting in poor yields in the first crop, and partial chavi in the second crop due to the scarcity of water. This year the matter has reached its climax" (letter dated 16.8.71; 2; emphasis added).

The affected agriculturists had a general body meeting (22nd July). The meeting was attended by more than one

were repeated pleadings from the tail-enders to arrange for a proper water impounding device - a permanent Korambu and a silt remover at Sithanai.

The condition remained much the same in 1970. A telegram was sent on 2nd July to the Madurai collector informing that even after the lapse of one full month since the reopening of Periyar the water did not reach the area and therefore even the seed beds could not be raised. The letter pleaded for immediate solution to the problem. Another appeal was put forth in June of next year (1971) that they need police bandobust as they face confrontations with the upstreamers. When they tried to clean the channel as a preliminary task of every year, the encroachers objected to it.

The water was released on 5th July but it did not reach the tail-end till 16th August. Agriculture was affected. This was informed to the officials, as this was the default of the irrigation department in neglecting inspection since 1965. They pointed out that "from 1965 onwards, we are suffering from similar hardships, due to the late supply of water, after several repeated representations, resulting in poor yields in the first crop, and partial chavi in the second crop due to the scarcity of water. This year the matter has reached its climax" (letter dated 16.8.71; 2; emphasis added).

The affected agriculturists had a general body meeting (22nd July). The meeting was attended by more than one

thousand persons. Various charges were levelled against the bureaucracy. They finally decided not to raise crops, till the problems were solved. This was also informed to the officials. They waited for another two months. There was no improvement. The first crop should have been over by that time; but the entire area was kept fallow. The upside farmers were enjoying a good cultivation. Tension has been increasing in the tail-end areas. On November 24th agitated tail-enders gathered together and moved towards upstream with sickles and spades. They started destructing Korambus, Kamalais, Thoombus, encroachments and crops. The alarmed upstreamers prepared for a resistance. The police intervened in the wake of a riot between the upstreamers (encroachers) and tail-enders. The Collector and Tahsildar assured them that necessary steps will be taken. The collector carried operations against the encroachments and the Revenue Divisional Officer (RDO) ordered to clear the encroachments.

Now the upstreamers were trying to get a stay- order "to protect their crops". The cautious tail-enders immediately flashed a telegram to the Minister and secretary of the Revenue Department and requested them not to grant a stay order (26th November 1971). It was followed by a detailed letter explaining the situation as, 'the channel is cross-bunded at several places to take water to the encroached

lands.... the water flow is very meagre.... our representations to the authorities have not yielded any results.... no stay order should be granted to the encroachers. (instead) orders be passed to remove the encroachments. the meantime the Collector, who was stubborn in removing the encroachments, in favour of the tail-enders, was from Madurai district.

The aggression was renewed. The tail-enders once again appealed to the new Collector in July 1972. Further they raised huge funds and managed to get more water through bribing and solved the problem temporarily till 1973. They learned that they spent more than Rs.10,000 every year.

The Government has allotted Rs.7.3 crores, to improve Periyar Vaigai Canals irrigation (Indian Express; 6/12/72). The work was to be done in two phases; first between Vaigai reservoir to Peranai and second, below Peranai. On the basis of this, the tail-enders pleaded that the work should be given to Thenkarai channel (16th February 1973).

Again in June, another representation was put forward. They suggested seven vital steps be taken. They were: repair of 18 sluices in the channel, a resurvey of the channel and expand the width of it wherever it is reduced; the channel to be built with cement concrete so that the water will not be lost through seepage and the canal will

encroached; to take severe action against the encroachers, construction of a separate sluice at Tirumangalam Main canal to get water only to the Thenkarai Kanmai to avoid the confrontations with upstreamers; to remove the silt and repairing the Kanmai; an alternative arrangement of Korambu at Sithanai; and to raise the bunds of the channel and Kanmai. They also met the Collector in August, followed by a reminder. Things were showing signs of improvement after this. The encroachments, were cleared, though the encroachers managed to get a stay order in the meantime but it got cancelled later. The year 1975 passed very peacefully.

The problem started once again in 1976. Almost the same story got repeated. This time the RDO and Collector were stubborn enough in favour of tail-enders. The encroachers got the support of Usilampatti M.L.A. who belonged to Kallar caste. Their point was that they were poor agriculturists who were refused water for irrigation, and sought the acceptance of the Revenue Board. The tail-enders still went up to the Governor and prayed for justice (23.3.76). There was tension on both sides.

The monsoon failed in 1976. The water was not released in the canal. There was no cultivation in the entire area. The ryots asked for tax-exemption. A limited supply of water was released in the first week of November, and that was



grabbed by the upstreamers. The tail-enders were completely deprived.

In 1977 the encroachment was in full swing, this time with the help of a member of Parliament. This was reported to the Collector by the tail-enders (26.4.77).

However by this time the Government of India had approved a project to modernize and improve the Periyar Vaigai irrigation. It sanctioned Rs. 1455 lakhs. The purpose was to extend the irrigation by bringing improvements in the efficiency of the existing system through lining the main and branch canals.

#### 5.5 Canal Irrigation and Degree of Conflict:

As long as irrigation is private, it neither requires co-operation nor results in group conflict. The moment it becomes common to all, and if the source is scarce it results in competition and group conflict, but also in cooperation within groups to face competition. All these are reflected in a study of the agrarian social structure.

Singloor, having multi-sources of irrigation and egalitarian land structure, relatively shows more village corporateness, and lesser conflicts, whereas Doubloor depending on single source of irrigation, and having an inegalitarian land structure, shows a perpetual state of conflict. Even though certain amount of co-operation is prevailing, in Doubloor it is only among kins and big landlords.

### 5.5.1 Singloor:

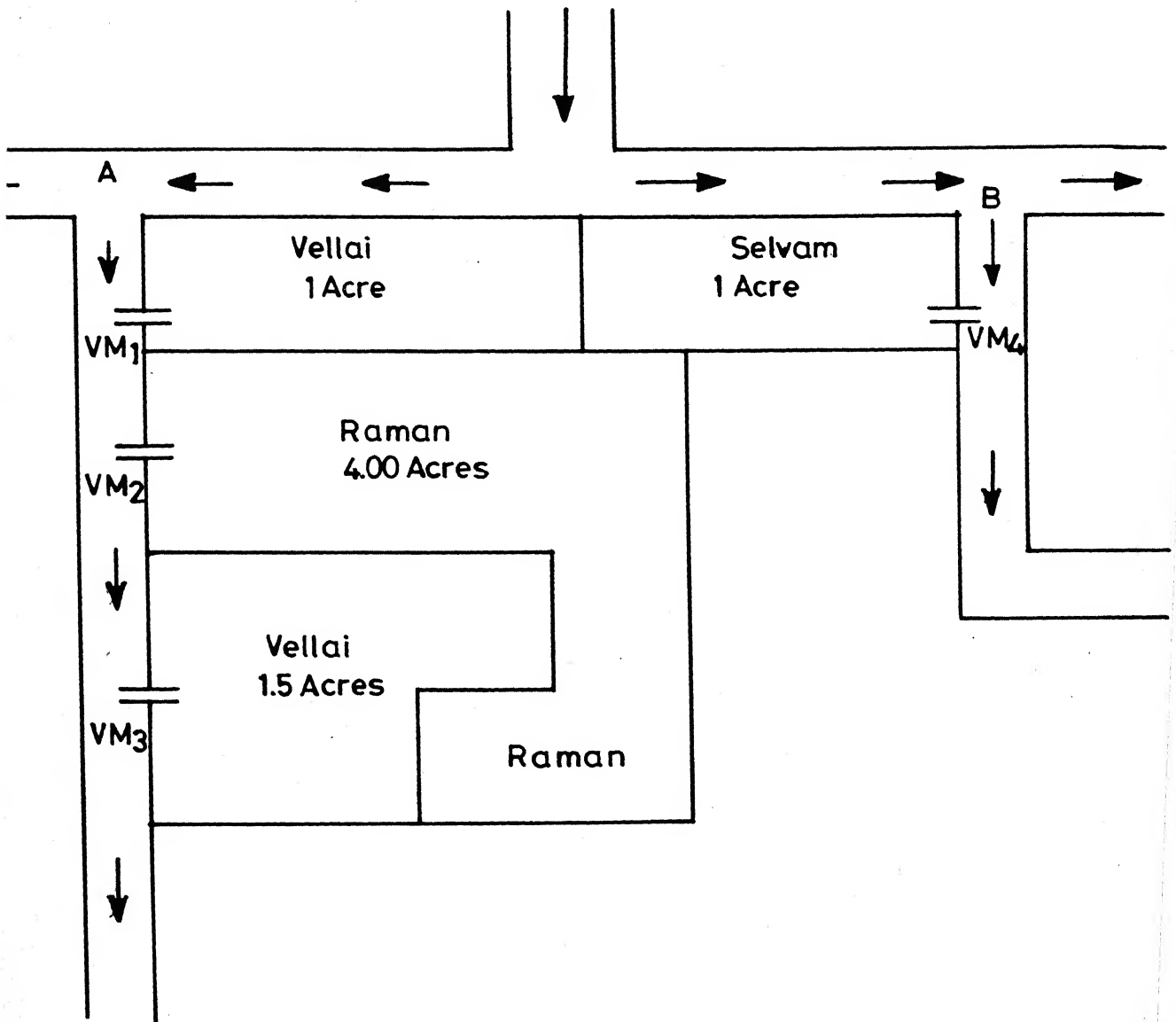
Canal irrigation in Singloor does not pose any direct conflict of irrigation. Such tensions never arise, because of the network of mixed crop culture and multiple sources of irrigation. However, in order to grab lands closer to the canal and control irrigation, there has been a case of conflict that has simultaneously led to an increase in land value. Details of two cases are enumerated below to highlight the nature of such conflicts.

#### Case V.1

Raman a primary school teacher aged 40 years was born in a nearby village. He was educated under the Kallar Reclamation scheme and married a girl from Singloor. He settled down in Singloor as his wife inherited two acres of land from her parents along with some jewels. Raman sold a part of the jewels and bought two more acres of land and established himself as a rich farmer in Singloor. Besides, he became a member of a nearby Sugar Mill- situated in Alanganallur near Madurai - and cultivated sugarcane for the mill.

Vellai, a civil contractor, owns land both at the upper and lower side of Raman's land. He enjoys the privilege of two Vamadais (field inlet points), while Raman has only one (see, Figure 5.4). In 1970, Selvam, the adjacent landowner to both Raman and Vellai wanted to sell his one acre of land.

Figure 5.4  
Case V.1



VM - Vamadai (Field Inlet)

But he happened to be a pangali of Vellai. Raman wanted to purchase the land, as he would then get another Vamadai through the water course B. While Raman was determined to obtain it at any cost, Vellai claimed that the land has to be sold only to him as he was a Pangali. Ultimately Raman bought the land paying double to prevailing price of land by selling the remaining jewellery of his wife in addition to a loan.

#### Case V. 2

Whereas in another recent case (1980) a small peasant was victimised and had to mortgage his land and become a wage labourer. Krishna and Govind are brothers, each owns 0.50 acres of land, situated in the tail-end of the watercourse. Both are ploughmen. Krishna became a 'friend' of Periya Thevar, a rich farmer adjacent to his land, who has a pumpset well. Periya Thevar 'patronized' Krishna and used him for minor labours. He offered him loans as and when required, which Krishna did not strictly treat as loans. Thevar also helped him to avail the facility of his pumpset, at a nominal rate of Rs. 3 for an hour's use.

But Krishna's younger brother Govind who is more independent, did not like it and warned his brother to keep his distance with Periya Thevar, lest he is exploited for the Krishna did not heed his brothers advice. Periya Thevar lear

this and started causing trouble to Govind by not letting water through watercourse by making 'crab holes'<sup>13</sup> in the watercourse. However, Govind could manage water in the midnights, by repairing all the crab-holes without the knowledge of Periya Thevar.

In mid- October, 1980, one of Krishna's bullock was injured severely, which had to be disposed off and a new bullock required in its place. As usual he asked Periya Thevar for a loan of Rs. 500/-. Periya Thevar refused him this time, as his account had already gone above the 'limit' amounting Rs. 2500/- which included his earlier loan, and the price for water etc. Krishna mentioned about his labour rendered to him. But Periya Thevar refused to accept the argument and threatened that he would take the other bullock and the entire yield of paddy. Krishna sought the help of Govind, but Govind was unable to manage such a big amount. However Govind advised him to mortgage the land for one year to Periya Thevar himself from the next crop, so that they would not be disturbed for a year. But when Periya Thevar struck to his demand, Govind informed the village council and the Council influenced Periya Thevar to mortgage the land. Govind then lent his bullocks to Krishna to be used for sometime to earn money by ploughing. Later he also managed to get an old cart for Krishna that could also be used for hiring in order to make

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13. Crab-holes are usually the shelter of crabs in paddy field. The crabs construct the shelter under the bunds, which separate two pieces of land. This leads to the transmiss

year. However the problem of the land being at the tail-end still continues. This case emphasizes the fact that manipulation of irrigation facilities by the rich to trap the poor does lead to conflict.

Thus the tendency to have control over irrigation is increasing in the village. By and large, due to the multiple choice of irrigation on the one hand, and the multi-crop system on the other it is kept at a minimum. The problem at times, is solved, with the help of Pangalis or Maman-maccunan. But Raman's case was different because he was an outsider and his wife had no brothers to support. In Krishna's case, it was his mistake to fall into the trap of Periya Thevar, but was saved. Thus the village corporateness always has a hand in village affairs. Kinship ties also works to maintain the balance of the village social structure.

#### 5.5.2 Doubloor:

Doubloor, with a single source of irrigation, and an inegalitarian structure of landowning, posed serious conflicts over irrigation. The big landlords used farm labourers, waterman and musclemen to grab the water below the distributor and the middle category was affected. There are conflicts among distributories and within the distributories too.

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(footnote 13 contd....)

of water from one piece to another overnight. In order to steal water from neighbours land people would make holes like 'crab-holes'.

## Conflict Among Distributories and Within the Distributory

Doubloor, as a part of the nearby mountains, has land of different levels. This is reflected in the canal and distributories (refer, Figures 3.2 and 5.5).  $D_2$  is the main distributory through which almost half of the lands in Doubloor is irrigated. Being constructed at a higher level, a small Korambu is constructed within the canal to raise the water level so that it could get into the distributory  $D_2$ . Since  $D_1$  is lower than  $D_2$ , it always takes the lions share of canal water. Hence in order to fill  $D_2$ ,  $D_1$  is to be completely closed.  $D_1$  irrigates the lands of another village. But the cultivators under  $D_1$  do not oblige to close their distributory. Doubloor represented this problem to the irrigation officials.

The crux of the problem is that the level of land as a whole is high (see the square covered by A & B points in the figure). This land level problem is not only for Doubloor, but also for the remaining tail-end villages. However this could be removed only if the department of irrigation installs concrete slabs inside the canal and raise the level right from Sithanai.

Within this distributory there are levels of differences to various watercourses. Watercourse 1 ( $WC_1$ ) is at a higher level than  $WC_2$  and watercourse 3 ( $WC_3$ ) is still lower than  $WC_1$  and  $WC_2$ . Thus this leads to conflict. The MP area is

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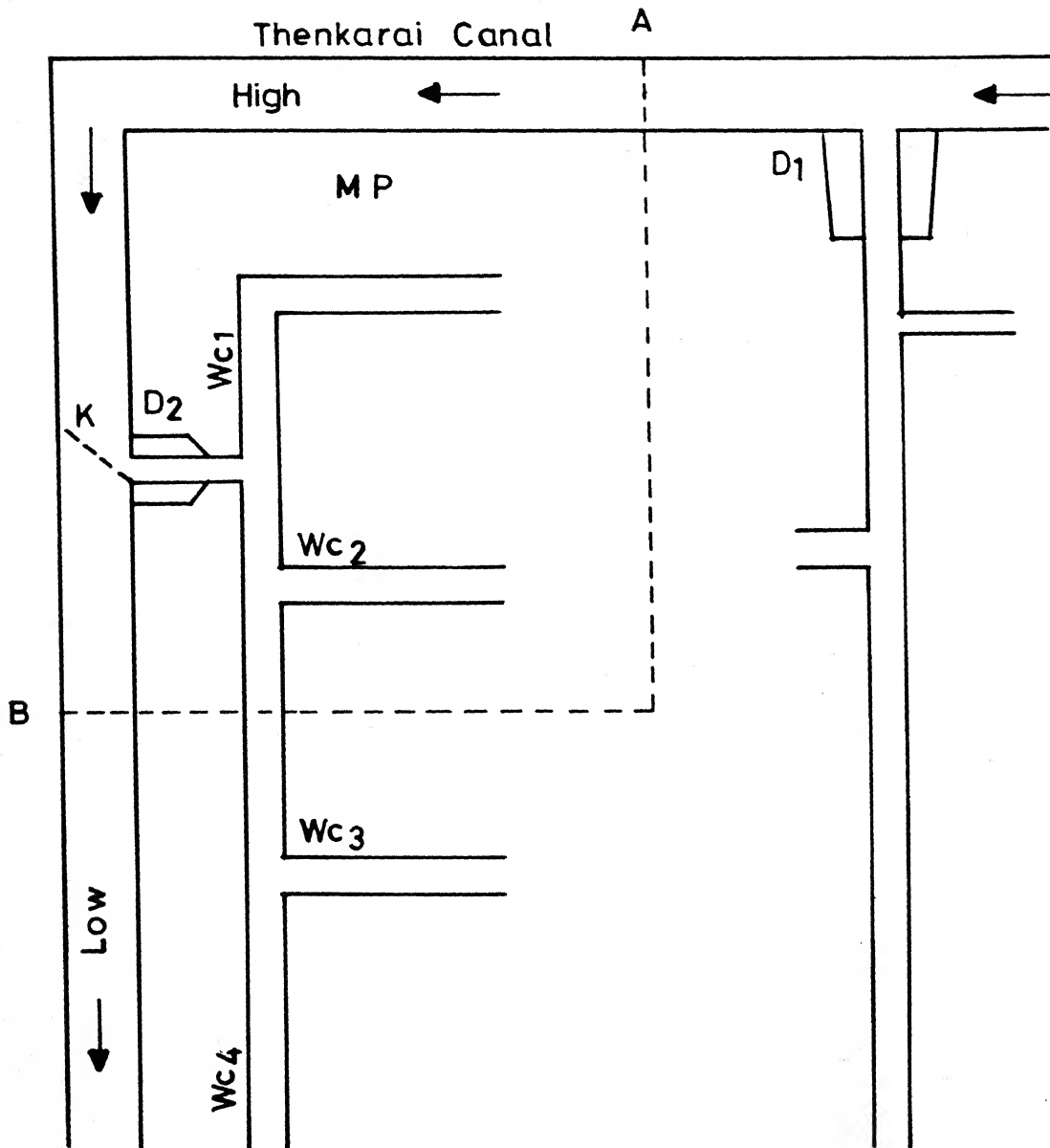
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Figure 5.5

The Upper Level Distributary of Doubloor.



D<sub>1</sub>, D<sub>2</sub> - Distributories

Wc - Water Courses

K - Korambu

M.P. - Land Owned by Neighbouring Village .

mostly owned by other village, which can be irrigated, only if  $WC_2$  and  $WC_3$  are closed. Water needed for irrigation is most during certain periods of time when rainfall is not sufficient. Lower watercourses have much water and people benefitting from it do not prefer to share it.

Further all the headreach lands are owned by rich farmers, and so they manipulate to get water for their relatives and supporters of the village. Thus those with lands at the upper level and those who are not at headreach in lower level are badly affected.

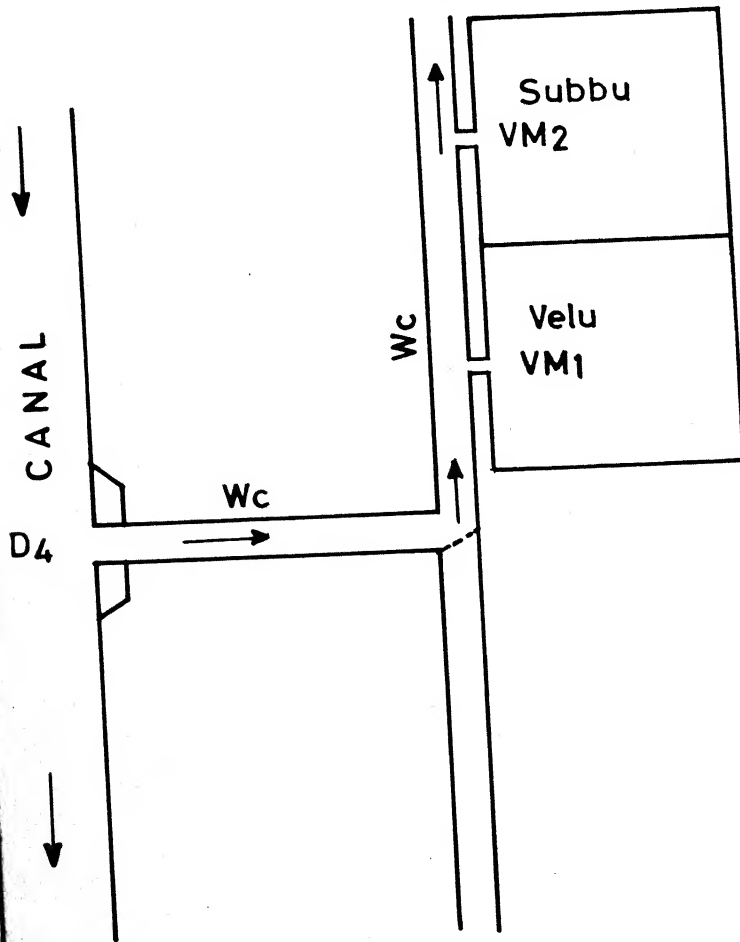
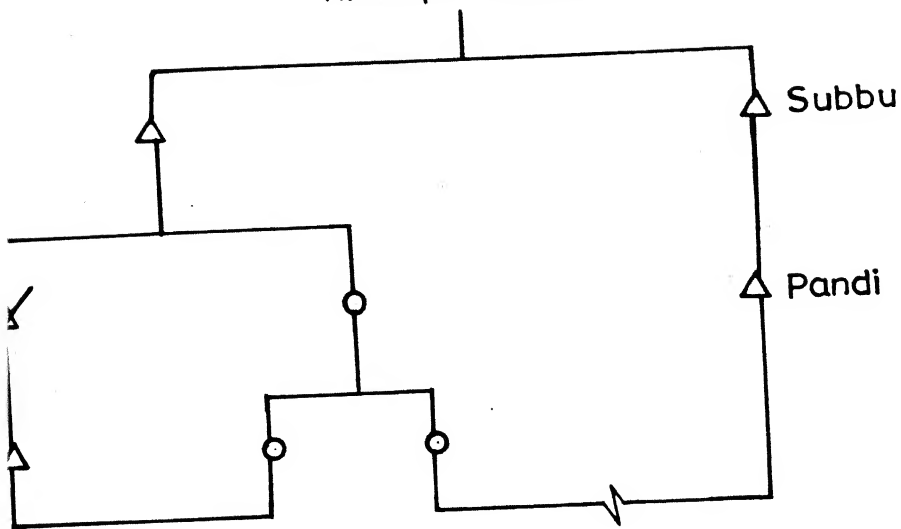
### Case V. 3

Velu and Pandi were Pangalis, desendents of the same lineage (see, Figure 5.6). However Velu was of similar age of Subbu, Pandi's father. In fact the eldest son of Velu and Pandi have married the daughters of the same household and thus became co-brothers or 'Sahalapadis'.<sup>14</sup> Velu and Subbu had their lands situated adjacently. The present case deals with a particular piece of land, irrigated through  $D_4$  (Distributory 4). Here both Velu and Subbu own 2.25 acres each, irrigated through the same watercourse.

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14. 'Sahalapadis' are any two male members, who married the daughters of same house.

Figure 5.6  
Case V.3  
Kinship Relation



VM - Vamadai (Field Inlet)  
D4 - Distributary  
Wc - Water Course

Velu's field is situated first in the watercourse and so he gets the water before Subbu. The level of Subbu's land is one foot higher than Velu. Velu therefore is in a better position to exploit more water than Subbu. On the other hand, Subbu's land can get sufficient water only if Velu's 'Vamadai' ( $VM_1$ ) is closed. The water flows very slowly while passing Velu's field ( $VM_1$ ) or it does not flow at all, especially at the time of water scarcity.

Velu prepares seedlings even before the release of canal water, as he possesses a pumpset. He utilises the canal water directly for puddling and starts plantation immediately. Thus his transplantation preceeds the other farmers by 20 to 25 days and so is the case with harvest.

The monsoon was not sufficient in June 1979. Agriculture was entirely dependant upon canal water. The water stored in the reservoir was insufficient, therefore the competition for water was acute everywhere. As the usual practice is 'continuous flow',<sup>15</sup> the people who had land at 'upper levels' could not block the watercourse, and so were in trouble.

Velu had already prepared the seedlings as usual, with pumpset water. Subbu had arranged for 'readymade' seedlings

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15. Water is let to flow continuously, and not 'rotational'. The persons who need the water can take a portion of water and should not block the watercourse.

from the adjacent village. (Seedlings are often sold because of the failure of monsoon). Both Velu and Subbu wanted to puddle their fields for an early transplantation. But the amount of water in the canal was meagre and the watercourse was getting even less water. Thus it needs atleast one week to wet and puddle the lands.

Velu made efforts to proceed as usual. He wanted to utilise all the water in the watercourse. His seedlings were already removed from seed-bed and so he was in a dire urgency to puddle his land. Both Velu and Subbu hired ploughmen for puddling the land. Velu wanted Subbu to wait for 3 days, so that he could finish his work and then leave water for Subbu. But Subbu wanted Velu to do the same. However there was no compromise.

Both Velu and Subbu started ploughing. Velu ordered his musclemen to appropriate all the water. Pandi said that he would not allow that. Warnings of dire consequences were exchanged. Others intervened on the scene, and took them to the village. However there was no improvement.

In the same evening Velu was found murdered in the same field. Pandi had fled from the village. His whole family was driven out. His wife sought divorce. Later he was arrested, but released as not guilty. However Pandi sold all the land for his court case. His lands were bought by

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a friend of Velu, from a neighbouring village, and later transferred them to Velu's family. This case only highlights the fact that competition for scarce water does not spare even close kins.

#### Case V. 4

Jegan (30) belongs to the Maman- Maccunan group of the village. His father had moved over to the village in 1950 due to marriage. Jegan's mother is the native of Doubloor. She was given 3 acres as dowry and later on they added 5 acres to it. There is a younger brother to Jegan called Neelan. Both are married and live separately. Both inherited 3 acres each. The remaining two acres are held by their parents.

Neelan, married his maternal uncle's daughter, who is the native of the village. He got 2 acres in addition through his wife. Further he got water from the tubewell of his maternal uncle along with the land. His maternal uncle is the local agent of the DMK party. Thus Neelan had better contacts with irrigation officials, because of his influential relations.

Jegan had no such influence. He struggled to mobilize more water for his crop. He found that it is impossible for a common man to win the irrigation officials. He confronted them very often, but returned with negative results. He collected the signatures of affected farmers and sent copies



of it to the irrigation ministry. There was a delayed but Vague reply. Later he was approached by musclemen of rich farmers and was warned not to resort to such activities in future. There were indirect disruptions of water through making 'crab-holes', and weakening the common bund and obstructing the water in the watercourse. Once he even decided to sell his land and shift to the city. Later, he decided to grow coconut trees which do not need much water against a water consuming crop like paddy.

In 1975, Jegan's mother-in-law died, leaving her jewels to Jegan's wife. This was a turning point to Jegan. He sold the jewels and bought 2 acres of land on his wife's name, in the headreach area which had no water problem. He employed a 'musclemán' as 'waterman'.

He joined the Congress- I in 1980, and managed to become the local leader of youth congress. He took active interest in elections. He mobilised votes from the affected farmers for Congress-I, and utilised his previous contacts with masses. The Congress-I candidate won in that assembly constituency. In the end of 1980, he had become the District Secretary of youth Congress-I. The DMK party was defeated at the state level too. Jegan's local influence increased. This facilitated him to influence the irrigation officials, and he is even preparing to contest the Panchayat Union Elections.

Jegan's case reveals the influence of politics on irrigation showing that a person with political connections could avail irrigation facilities easily.

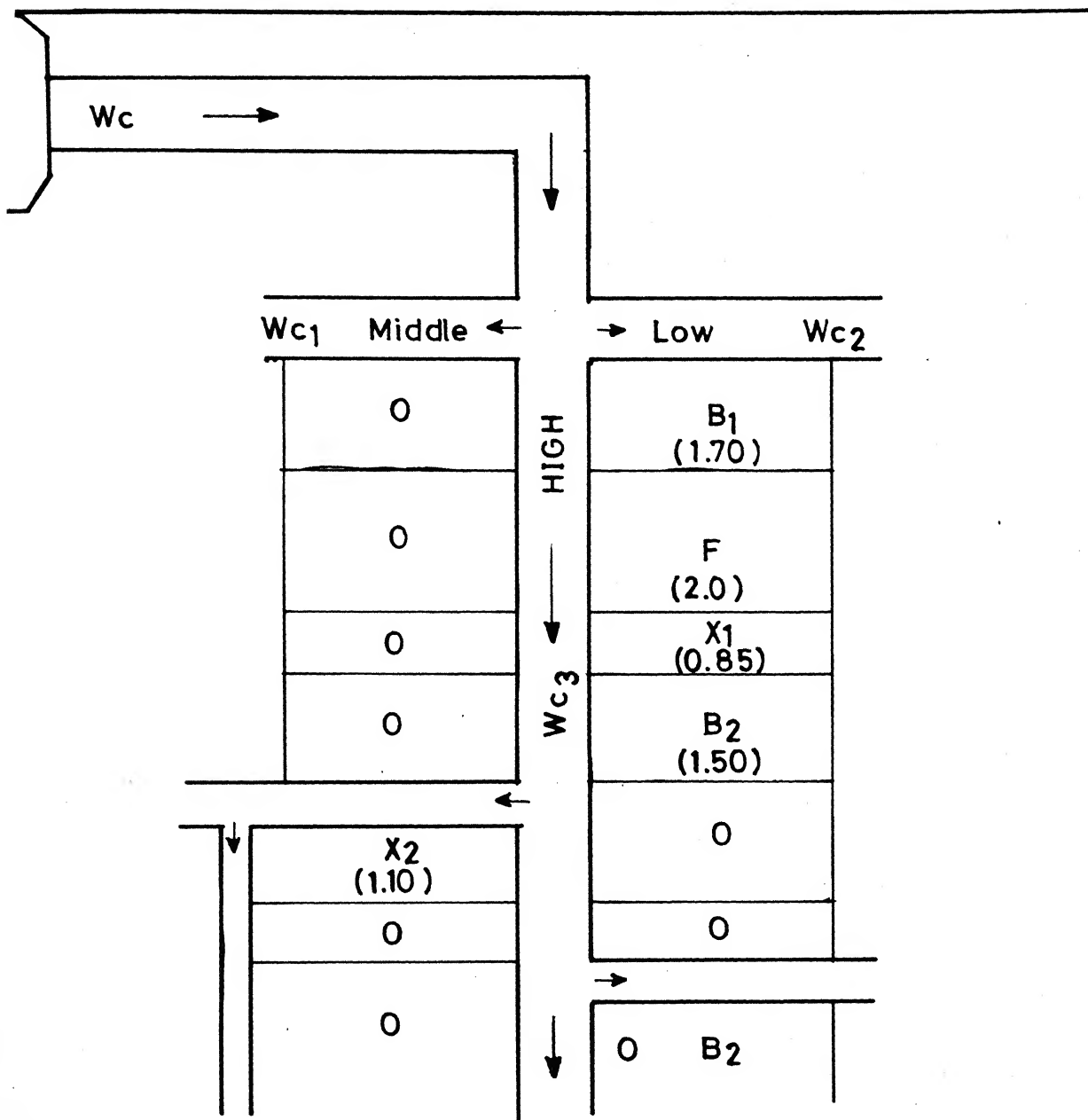
#### Case V. 5

P.M. Ammal (50) is a native of the village and settled there after marriage. As she had problems with her 'in-laws', she was provided 3.50 acres by her father. Later she purchased more lands. Her husband died in 1965 leaving a son and daughter. She saved money and with the support of her parental family, she bought more land and increased it to 8 acres. She exchanged her daughter for the daughter of her eldest brother through marriage. This plays an effective role in agriculture, especially in the distribution of water.

As shown in Figure 5.7, the two pieces of P.M. Ammal's land is shown as  $X_1$  and  $X_2$ ; these pieces are irrigated through  $D_2$ . The number in bracket shows the size of the land. The land  $B_1$  is owned by one of her brothers. The land  $B_2$  is owned by the other brother with whom she exchanged the daughter. The land F is owned by her friend, Alagu Konar. The land shown as 0 belong to others. The three different watercourses are shown as  $WC_1$  (the surface level is middle),  $WC_2$  (the surface level is low) and  $WC_3$  (the surface level is high). These differences of height is between 10 to 15 inches. Now we will see how the co-operation among P.M. Ammal and her

# Figure 5.7

## Case V.5



X<sub>1</sub> & X<sub>2</sub> - P. M. Ammal's Land

B<sub>1</sub> & B<sub>2</sub> - Brother's Land

F - Friend's Land

O - Other's Land

group, benefits them mutually.

All the three watercourses do not carry water simultaneously because of their differences in level.  $WC_1$  and  $WC_2$  must be closed, if  $WC_3$  must carry the water.  $WC_2$  must be closed if  $WC_1$  must carry the water. Nothing is to be closed if  $WC_2$  must carry the water. Due to this level problem the farmers of  $WC_1$  and  $WC_2$  agreed to close their watercourses for 24 to 30 hours in order to enable the farmers of  $WC_3$  to take the water.

Within the watercourse  $WC_3$  there is competition to grab 'sufficient water' within the stipulated time. Any farmer who does not need water within that range of time stipulated, due to some agricultural or social inconvenience like application of fertilizer, or attending a marriage, will have to wait for a week or more till the next turn of  $WC_3$  comes. Other than such rare example, there are routine practical reasons for not being able to get sufficient water. Thus the crop is affected for want of water.

Whereas, in the case of P.M. Ammal and her network, no body was affected. Whomsoever was in a position to get more water, stored it and then later on passed it to the needy person of the group, through the water course or fields.

$B_1$  is in the beginning of watercourse and so could get more water without loss of seepage and evaporation. On a

particular day  $X_1$  wanted to weed her crop. The water should be removed from  $X_1$  for this purpose.  $X_1$  started weeding at 8 a.m. and finishes it at 1 p.m. But the turn of  $WC_3$  ends at 12 a.m. Now  $X_1$  requested either B or F to store her water in addition to their's for 6 hours duration, and pass it after she weeds. A rough account of water 'give and take' is maintained and is adjusted accordingly. In this case study we find the positive role of kinship, which is contrary to Velu's case. Here, as P.M. Ammal was a 'daughter' of the village, and a widow, the entire kinship helped her in all possible manners. Further, she found alliances for her daughter and son within the village and tied her family closely.

#### Case V. 6

Mohan (55) belongs to the 'Servai' caste: Servai caste is a sub-caste of Ahamudaiyar, and are economically very weak. There are only 8 households, owning 0.56 acre on an average (Their relative position is given in Table 5.5).

Table 5.4The Relative Position of Servai and Kallars

Castes	Number of households	Land owned (in acres)	Average land per household in acres.
Servai	8 (7.6%)	4.5 (4.13%)	0.56
Kallar	80 (75.5%)	90.25 (82.79%)	1.12

Mohan felt that though Servai caste was closer to Kallar caste than the other castes (Konar and Nayakkar), the expected co-operation of Kallars is decreasing because of their land consciousness. He felt that the Kallar caste of Doubloor preferred the Servai castes to leave the village, using irrigation as an instrument to trouble others and appropriate lands from them.

Mohan's grandfather was an elite of the village. He owned 2 acres and passed it to Mohan's father. Mohan's father faced trouble with irrigation. He even wanted to leave the village, but later sold 1.5 acres. The remaining land was in two pieces of 0.28 and 0.16 acre each.

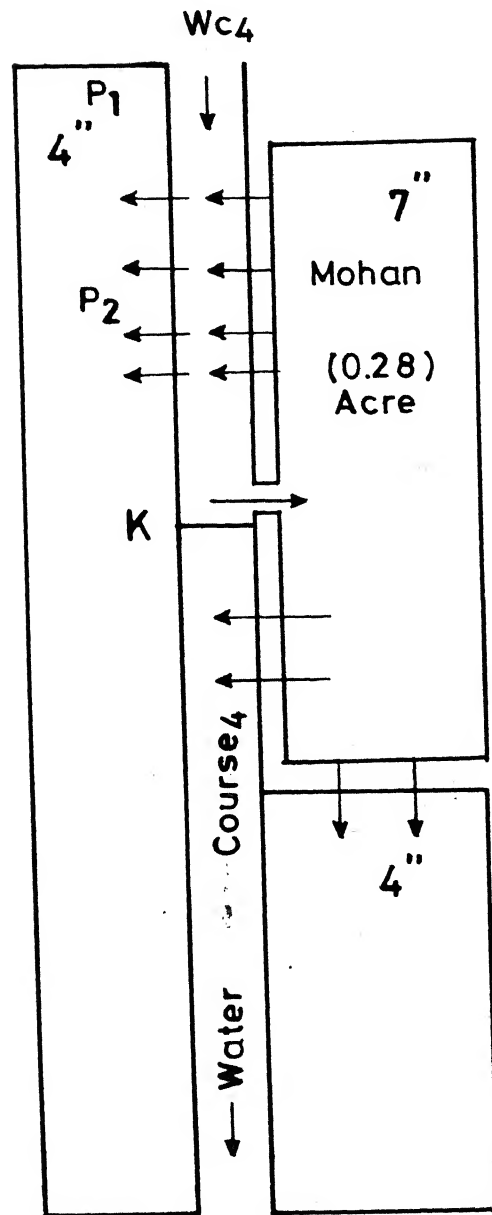
The first plot (0.28 acre) is situated under  $D_2$ , the upper level distributory, and under  $WC_4$  (watercourse 4).

His plot is also situated at the end of the upper level lands, which has a difference of three inches than the adjacent land (see, Figure 5.8). But though this plot is in the middle reach of the watercourse, the watercourse is below the level of his land. The watercourse is on par with the other lands, and so the leakage from his land is used by the others. Mohan always has to store water of 6 inches height, within the watercourse to irrigate the land. This 'preparation' itself takes more than an hour. Storing of 6 inches water, means over flowing of the watercourse upto the other end, thus because of Mohan, the neighbouring landowners automatically got benefitted. They made the side banks of watercourse so weak as to get the maximum leakage. Moreover the stored water at the watercourse also became the surplus water to the neighbouring lands. Thus Mohan's labour was exploited in many ways.

In order to irrigate his plot, Mohan raised a barrier (K' in the figure) to stagnate the water. When the water rises at the watercourse it falls at the point of  $P_1$  and  $P_2$ , which is artificially made weak. Hence Mohan repairs it every time he irrigates.

Once Mohan was trying to repair the weak positions of the bank  $P_1$  and  $P_2$ , he found no soil for that. Hence he took some mud from that (  $P_1$  and  $P_2$  ). Immediately the

Figure 5.8  
Case V.6



K - Barrier

$P_1$  &  $P_2$  - Neighbouring  
Land



neighbour objected and made a sudden breach in the bank. The water saved for one hour dashed into his neighbour's land from the watercourse and affected Mohan. Later Mohan brought the matter to the village council, where Kallars were in dominant position. They only ridiculed and laughed, but nothing came out of it. This angered the Servai castes, and they protested but ultimately could do nothing as they are minority and had to live in the village.

#### Case V. 7

Balu (age 30) belongs to the Kallar caste, and is educated upto 10th Standard. He irrigates (as a waterman) 8 acres of land belonging to three different landowners, but situated under the same distributory. One of the landowners belongs to Doubloor and the other two belong to the next village. All the lands are situated at the upper level and also in the tail-end area. He irrigates mostly at nights, which is the only convenient time, having no disturbances of water by others. He also goes for wage labour in the forenoons.

He however does not like 'watermanship' due to the dangers and risks involved in it. However he needs a secure job and therefore carries on. He narrated his encounters with poisonous snakes, his escape from musclemen and his many slips in the watercourse and the field. However he constantly undergoes the threat of loss of job if he does not please his

master.

His desire is to form an organisation of waterman and lay down certain basic norms to be accepted by the farmers. One of the demands is that the job be made permanent, and to protect the interest of watermen.

Degree of corporateness in relation to irrigation is found through the Thenkarai association at a larger level (tail-end villages) and Korambu construction at the local level (Doubloor). Whereas, Singloor is not a part of such an association, because it is not needed. However, its corporateness is at a different level, i.e., at the village level which also takes care of the problems of irrigation. Though Doubloor is united in Korambu construction, this unity disappears in distribution of water below the distributory with conflicts at different levels. Singloor, on the other hand, with its egalitarian social structure and alternative sources of irrigation, is able to maintain the corporateness at all levels.

In Singloor, decision makers are members of the village council. In Doubloor the decision makers are a few big landowners, who also have links with bureaucracy. Some of them are also politicians who have links with the wider political structure.

## CHAPTER VI

### PRODUCTION CONDITIONS AND AGRARIAN SOCIAL STRUCTURE

With the onset of Green Revolution, production conditions underwent a change in Indian agriculture. Though productivity increased significantly, inequality among various sections also grew. While this is the general trend, it must be noted that there do exist some pockets which did not adopt the package of Green Revolution completely. The response of an irrigated area is different from that of a non-irrigated area. The response from communities dominated by big landowners is different from that of peasant dominated communities. Accordingly, the dynamics of agrarian relations differs.

In this chapter, the dynamics of agrarian relations in both the villages are dealt with. A brief introduction on the studies on the impact of Green Revolution is given in the first section, which is followed by the structure of class differentiation in section 6.2. The distribution of means of production other than land, is given in section 6.3. Various techniques of agricultural production, in terms of class categories are presented in section 6.4. Tenancy pattern is discussed in section 6.5. Indebtedness, mortgaging and sale of land etc. are discussed in section 6.6 and finally the dynamics of agrarian social structure is summed up in section 6.7.

### 6.1 Studies on the Impact of Green Revolution:

Formally, it may be said, that the Green Revolution in India was launched through the initial selection of seven districts under the Intensive Agricultural Development Programme (IADP) in 1960. Tanjore of Tamil Nadu was one of the seven districts. Changes introduced through the package of new technologies and infrastructural facilities in regions well-endowed with irrigation systems and socio-economic consequences have been thoroughly studied. Debates generated by these studies have focused primarily on the relationship between productivity and equity. Here we shall very briefly review conclusions of major studies on the impact of Green Revolution.

First of all, the new technologies were unevenly adopted in different regions of the country. This is made clear in the 'mode of production' debate of the early 1970s (see Bhaduri 1973, Chandra 1975, Patnaik 1971a, 1971b, Rudra 1970, Sau 1976). There were significant variations even within a small region. On the other hand, success of the Green Revolution itself was considered problematic in the context of equity. 'Increasing gap between the rich and the poor' became an important concern in the wake of rising tensions and conflicts in Green Revolution regions (Ladejinsky 1969a, and 1969b, Warriner 1969, Frankel 1971, Oommen 1971, Byres 1972, Gough and Sharma 1973, Griffin 1979, Dasgupta 1980). The key problems were concerned with

the deteriorating condition of the tenants, inaccessibility of new inputs and infrastructural facilities to small and middle peasants in the imperfect markets, and unemployment and decline of real wages of agricultural labourers, while the bigger landowners increasingly adopted 'capitalist farming'.

The issue of land reforms acquired added impetus with the onslaught of the Green Revolution (for an exhaustive study of history and issues of land reform, see Joshi 1975). It has been argued that, even for efficient increase in productivity, the emphasis on rich farmers is misplaced. Given adequate infrastructural support, a self-cultivating peasant is capable of increasing productivity more than the big farmers whose land is cultivated primarily by agricultural labourers. Similarly, productivity remains constricted on land cultivated by tenants (Mencher, 1978: 286-289). Thus imposition (and effective implementation) of a ceiling on land ownership and 'land to the tiller' are the main issues of land reforms.

The processes involved in the Green Revolution and their consequences have been treated in another way in what John Hariss has called the "debate between what may be broadly characterized as 'the differentiation perspective' on the one hand, and the notion of a 'specific peasant economy' on the other" (1982: 24). The debate is summed up as follows:

On one side - that which we have referred to as 'the differentiation perspective' - there are those who argue that, with increasing commoditization and commercialization in agrarian societies, a process is set in motion whereby rural producers are set apart into distinct classes. This is a process of change which tends to create a small agrarian bourgeoisie or class of capitalist farmers, either from former landlords or from amongst the richer peasants, and a large class of agricultural labourers who might or might not retain small allotments of land for their own use. In between there is a 'middle peasantry' or a class of more or less self-sufficient household producers, who use mainly their own family labour and are little involved in selling their labour power, and who have sufficient resources to provide for their own livelihood requirements. This class tends to be squeezed out progressively as the process of differentiation proceeds.

On the other side of the debate are those who argue not that the development of commodity production is unimportant, but that the distinctive peasant economy, that of small producers who are not separated from their means of production and who retain a degree of control over land and family labour, survives' (Hariss, 1982: 24-25).

In conclusion, Hariss states:

We offer no 'solution' to this debate, and we suggest that for analytical and for practical purposes both perspectives have a great deal to offer. It would be foolish to ignore the implications of tendencies towards differentiation amongst rural producers..... Equally, to ignore the persistence of peasant producers, and not to seek out the reasons for it, would be damaging to any serious study of agrarian problems (1982: 26).

Thus the issue at stake is the inevitability of capitalist agriculture and its concomitant contradictions in the under-developed countries in general, and India in particular. On

the one hand, this inevitability has been questioned and it has been posited that peasant economy can survive. On the other hand, capitalist agriculture, though 'constrained', is considered inevitable and land reforms are suggested to create an efficient organisation of agriculture based on self-cultivating peasants. But these peasants are not in the image of peasants of the nineteenth and early twentieth century, but modern and enlightened peasants.

In this chapter, both the tendency towards capitalist agriculture and persistence of peasant economy are demonstrated. Whereas Doubloor reflects the typical contradictions of capitalist agriculture. Singloor demonstrates the emergence of an enlightened peasantry.

## 6.2 Class Structure:

### 6.2.1 Defining Agrarian Classes

The literature on classes in Rural India is abundant. However, we find the most clear treatment of defining agrarian classes by Utsa Patnaik (1976). Basing her stand on the analysis of possession of the means of production and the exploitation of labour, she states:

..... the existing concentration of the means of production implies that the peasantry is highly differentiated economically into more or less distinct classes. However, the initial resources position of a holding, by itself is not sufficient to indicate class status accurately

at the empirical level. A host of other factors are relevant: the size and composition of the family, the cropping pattern and intensity of cultivation, and the level of technique at which labour is combined with other means of production — all these would affect and be affected by differences in the organisation of holdings. For this reason, the very commonly used single index, size of landholding, is an unsatisfactory one except as a very rough approximation to class status. It would be a good index only if 'everything else' other than area of landholding, remained the same as we moved across organisationally different types of holdings. But 'everything else' in reality is not the same. As regards area itself, an acre of irrigated or high-fertility land, is obviously different from an acre of rain-fed or barren land. Even if varying types of land could be reduced to standardised units, the same standardised area can be cultivated on widely varying organisational bases (1976: A 83-84).

Thus, on the basis of labour exploitation criterion, she mentions the following classes: (1) landlord, split into either big landowner of the feudal type or capitalist farmer, (2) rich peasant, (3) middle peasant, split into upper middle and lower middle, (4) poor peasant and (5) full time labour (ibid: A. 85).

Similarly, Beteille has pointed out that 'grouping people into statistical classes tells us nothing about the social relations among them, i.e., the nature of the rights, duties and obligations which form the basis of their mutual interactions' (1974a : 33). However, he suggests that 'if we are to understand class not as an abstract and formal



scheme but as a system of social relations then we will have to work through conception categories used by the people themselves' (ibid: 33). Thus, in his study of the village Sripuram of Tanjore district in Tamil Nadu, he uses the divisions of landowner, tenant and labourer as class categories (1966) although his later macro-analysis of 'Agrarian Relations in Tanjore District' is more complex (1974b). In her early analysis of social structure of the village Kumbapettai in Tanjore district, Gough had also used the divisions of landowners, tenants and landless labourers (1955).

Lindberg and Djurfeldt emphasized productive capacity of the holding as the main criterion for 'classification' of farmers in their study of Thaiyur Panchayat of Chingleput district in Tamil Nadu. According to them, apart from the type and fertility of the soil and size of the holding, 'differences in productive capacity between different holdings entail different relations to the means of production' (1973: 35). On this basis they arrive at the following four agrarian classes (excluding landless agricultural workers) : (1) small farmers, (2) small middle farmers, (3) big middle farmers and (4) big or capitalist farmers. However these classes, in their analysis, correspond to the land ownership categories of 0.01 - 2.49 acres, 2.50 - 3.99 acres, 4.00 to 7.99 acres and 8.00 acres and above respectively.

Mencher has studied several villages over a period of time in Chingleput district of Tamil Nadu. She emphasizes the role of relations of production in dividing the agrarian communities into classes but also gives the roughly corresponding landsize categories in the following way: (1) landless labourer (2) poor peasant (between 1 and 2.5 acres), (3) middle peasant (2.5 - 7.5 acres), (4) rich farmers (7.5 - 15 acres) and (5) capitalist farmer (15 - 30 acres) (1978: 161-182). The complexity in identifying classes are explained through case studies. While reviewing Mencher's book Dhanagare comments that, 'In presenting the profiles of the rural social classes (Chapter VII) Mencher resorts to two, not always consistent, approaches. On the one hand she uses the standard quantitative measure, namely size of holding in acres. Ever since Lenin used the famous Zemstvo statistics in delineating rural class structure in Russia, it has become a common practice to use such statistics to measure the extent of land control in rural society. On the other hand, Mencher has used the 'case approach' to illustrate the conceptual categories of 'poor', 'middle' and 'rich' peasants, and 'capitalist' farmers (pp. 172-82). She is fully aware of the refractory problem of identifying and classifying groups purely on the basis of landholdings' (1980: 101).

Thus we find from the previous studies that land size categories continue to remain the major single criterion for

an empirical analysis of classes, despite many complexities. However there is a great deal of variation in selecting the upper and lower limits of landsize categories assigned to different classes.

#### 6.2.2 Class Structure in Singloor and Doubloor

In the present study, we have adopted Mencher's approach of classification of peasantry. We shall use both the landsize categories and 'case approach'. However, our lower and upper limits of different landsize categories, roughly corresponding to different classes, are different. Various agrarian classes in both the villages correspond as a rough approximation, to the following landsize categories (nearly the entire land in both the villages is irrigated).

1. Landless labourers
2. Small peasant (0.1 - 1.0 acre)
3. Middle peasant (1.1 - 2.5 acres)
4. Rich peasant (2.6 - 5.0 acres) and
5. Big landowners (5.1 acres and above).

The comparative position of these classes is given in Table 6.1.

Landlessness is much higher in Doubloor (55 percent) than Singloor (27 per cent). A part of this section is engaged in tenancy in Doubloor. Fifteen out of 58 landless households are tenants in Doubloor whereas it is only two out of 42 landless

Class based on landsize (in acres)	Percentage of all households		Percentage of land owning households		Percentage of land owned		Average land owned by the respective class
	Singloor	Doubloor	Singloor	Doubloor	Singloor	Doubloor	
	Actual Cumulative		Actual Cumulative				
Landless	27.09	27.09	54.72	54.72	0.00	0.00	0.00
0.1-1.0	27.09	54.18	24.53	79.25	13.93	16.97	0.71
1.1-2.5	26.45	80.63	11.32	90.57	32.93	21.56	1.79
2.6-5.0	16.13	96.76	5.66	96.23	38.85	17.43	3.17
5.1 and above	3.23	99.99	3.77	99.99	14.24	44.03	8.33

households in Singloor.

To sum up, Singloor is not only egalitarian, but has a significant proportion of peasant category, and thus is predominantly a peasant village. In Doubloor, the landless are dominant and landlessness is greater. The structure of land ownership and landlessness of the two villages are depicted in Figure 6.1.

We shall now illustrate each category by citing cases as examples from both the villages to highlight the differences amongst the categories within the village and within the same category across the villages.

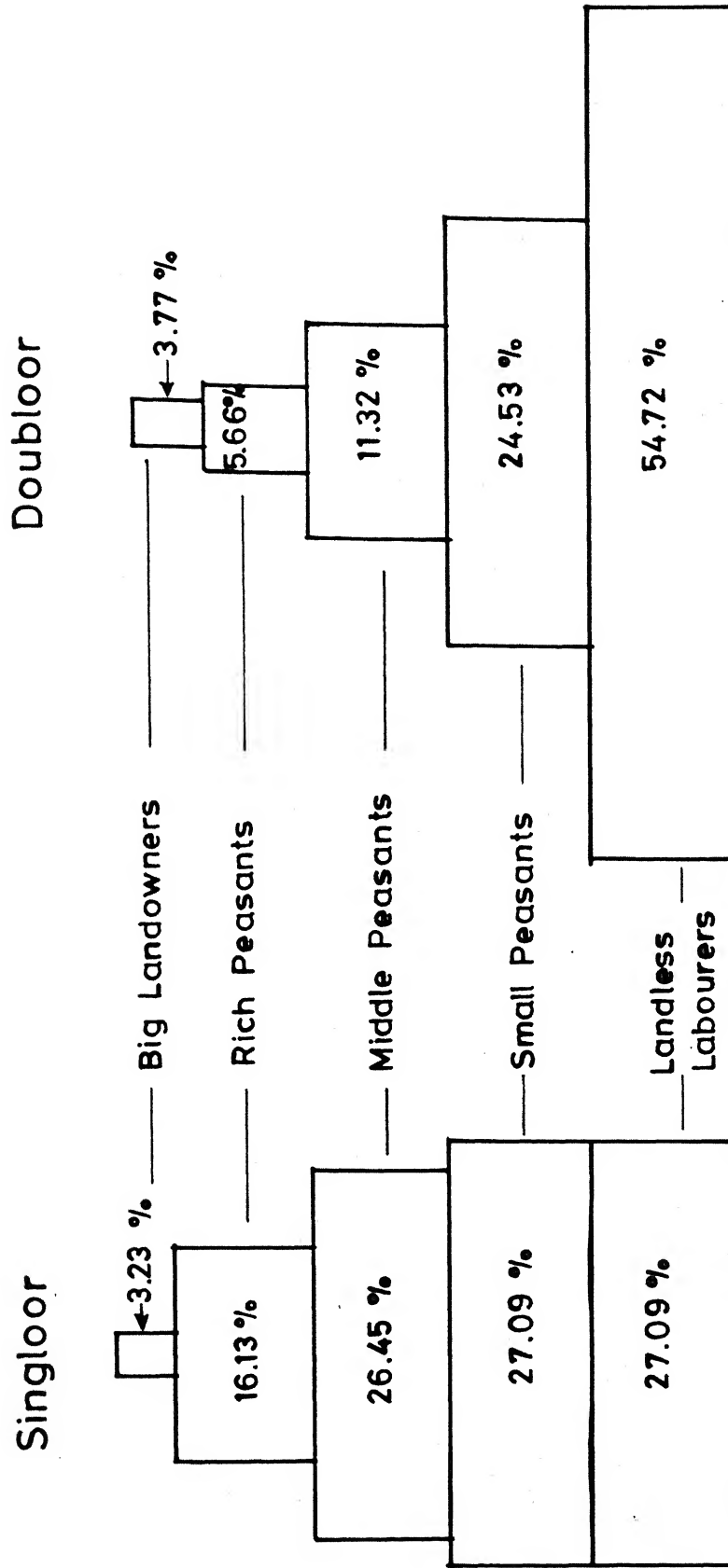
#### Landless Labourer

Ayyavu is a Kallar landless labourer of Singloor. He does all types of spade work (bund forming, bar constructions for cotton and sugarcane and spade weeding) and in addition is also employed to plough occasionally, the plough and bullocks being provided by the employer. Apart from these, he also goes for sugarcane cutting, harvesting, and fetching green leaf manure. His wife also goes for wage labour such as hand weeding, hoe weeding, and harvesting. They get employment all round the year except on heavy rainy days. They do have small savings to see through emergency situations.

Kasimayan is a Kallar landless labourer of Doubloor. Both Kasimayan and his wife work as wage labourers. They

Figure 6.1

The Class Structure in Singloor and Doubloor .



Note :- Percentage Refers to Households.

have work within the village for only a part of the year. Hence they seek employment in the neighbouring villages, when they fail to find work in Doubloor. At times, when free, Kasimayan is also employed to break wood in a fuel wood shop of neighbouring village. The cropping pattern of Doubloor is such that the demand for labour is not evenly distributed throughout the year. The effect of this is seen in the plight of the landless labourers unlike those of Singloor.

#### Small Peasant

Arumugam is a small peasant of Singloor who owns 1.00 acre, a bullock and plough set and a cow. He has two daughters- the older assists her mother and the younger studies in class V. Arumugam is educated upto class X and aspired for a government job but failed. He ploughs land on his own. He has no well but gets water from his neighbour's pumpset well on payment. He preserves seeds to assure the quality of seed and in turn saves the expense of purchasing new seeds, the cost of which escalates every year. His techniques are traditional cum modern. He applies cow dung to manure but also uses urea after the second weeding. Expensive pesticides are unnecessary according to him. He goes for wage ploughing occasionally and his wife and daughter go out for wage labour, the priority nevertheless being their land. However, he employs a few wage labourers at the time of transplantation and harvesting.

Veeranan is a small peasant of Doubloor, owns 1.00 acre, but has no means of production. He employs ploughmen, for ploughing and wage labourers for transplantation and harvesting due to the urgency of these tasks to cope with the water availability. He completely depends on chemical fertilizers both for base- manure and surface manures. He also applies chemical pesticides following the practice of big landowners.

#### Middle Peasant

Palanivel is a middle peasant of Singloor owns 2.5 acres along with a Kamalai well, a plough and bullock set and a cow. His family (including his wife and a daughter) is engaged completely in self-cultivation. He also preserves the seed for every crop. The techniques that he adopts for cultivation are absolutely traditional. He manures his land with green leaves, groundnut cakes and neem, thus minimizing the expenditure on chemical fertilizers and pesticides. He employs wage labourers for team work activities such as ploughing, weeding and harvesting. He and his family never work as wage labourers.

Chinnakannan is a middle peasant of Doubloor who owns 2 acres, with no well and bullocks. Both he and his wife are completely engaged in self-cultivation and do not hire out their labour. However, Chinnakannan hires-in wage labourers for all team work viz., ploughing, transplanting, weeding and



harvesting. In order to minimize the expenditure on agriculture, he preferred to purchase traditional manure from the neighbouring non-canal irrigated villages. But the system of production in the village has forced him to invest considerably by applying chemical pesticides and fertilizers.

Rich peasant/Capitalist Farmer

Alagumalai is a rich peasant of Singloor who owns 4.75 acres, a pumpset well, two sets of bullocks, and ploughs (four bullocks and three ploughs) and two buffaloes. The family comprises 7 members wherein three pursue education and the remaining four are engaged in agriculture. However, two only supervise and coordinate but the other two are actively involved in cultivation. Alagumalai employs wage labourers for both his crops - sugarcane and paddy. His two sons do the major ploughing hence necessitating only a few ploughmen to be hired in for completion. However, wage labourers are employed on contract basis for paddy harvest, sugarcane weeding, and cutting and bar construction for cotton and sugarcane. His methods of cultivation are a mixture of both traditional and modern. By utilising well water and canal water, he is able to rotate the cropping pattern.

Arivu Konar of Doubloor owns 4 acres and leases in 8 acres from an absentee landowner. He has a pumpset well and three sets of bullocks and ploughs and two cows. All his six family members, including himself, engage in agricultural

activities though only three of them engage in actual cultivation and the other three merely supervise and co-ordinate the wage labourers. Arivu Konar employs wage labourers for all activities, though both his sons work along with wage labourers. Arivu Konar heavily depends on the chemical fertilizers. He cultivates only paddy but twice a year following the general pattern of Doubloor. He follows the advice of the agricultural scientists, and the other big landowners of the village.

#### Big Landowner/Capitalist Farmer

Raman is a teacher as well as a big landowner of Singloor. He owns 5.75 acres and has a pumpset well. He also owns three sets of plough and bullocks and a cow. Though all his four sons are studying, two of them are involved in agricultural activities too. His wife is also engaged in agricultural activity. Raman however uses both the traditional manure and chemical fertilizers. He is one of the regular sugarcane cultivators of the village. He grows green leaf manure in a portion of his land and applies it as a base manure for paddy cultivation. He employs wage labourers on contract basis as well as individually depending on the requirement and urgency of work.

Pinnathevar, a retired police official, is a big landowner of Doubloor who owns 11 acres. He organises his

cultivation through farm labourers, watermen and wage-labourers. He owns 4 sets of plough and bullocks but sometimes also hires in tractors for ploughing and puddling. He follows the advice of agricultural scientists completely. He applies chemical fertilizers as per the experts' recommendations. He has also recently constructed a well (1980). He has four permanent farm labourers, who in turn supervise the wage-labourers' work. They also apply fertilisers, pesticides and irrigate the field along with the watermen. Besides they are the musclemen of Pinnathevar and take care of irrigation problems. The case of Pinna Thevar is a clear example of a capitalist farmer. We will now see in the next section, the distribution of the various means of production, amongst the above mentioned categories.

### 6.3 Means of Production:

In the present section we will discuss the distribution of other means of production viz., irrigation, bullocks and ploughs alongwith the distribution of cattle viz., buffaloes, cows and sheep/goats.

#### 6.3.1 Irrigation

Apart from canal irrigation, which is common to both the villages, Singloor has tank and well irrigation facilities too. In this section we shall see the pattern of irrigation through different categories, classified in section 6.1.

## Small peasants

Out of 42 small peasants of Singloor, eight own independent Kamalai wells and cultivate cotton, after paddy crop.

Seven small peasants share well irrigation with their Pangali households belonging to the middle peasant category. Four of them share Kamalai and three share pumpsets. These peasants have an inherited right over the well and irrigate on turn system, thus depending on mutual co-operation.

A third category of six to ten households, depending upon the crop and monsoon, engage in purchasing water from any category, on payment of cash or kind. The standard cash payment is Rs.3 for 3 H.P. pumpset per hour, though it varies depending upon kinship relations, and demand of water. This category generally cultivate cotton. Payment in kind is seen generally for semi-wet millet crops such as cholam (great millet), kambu (Pearl millet), Keppai (finger millet), and Tenai (Italian millet).

The fourth category of small peasants depend only on monsoon and canal water.

The small peasants of Doubloor have no source of irrigation other than canal. They do not cultivate cotton or millets.

## Middle Peasants

Out of 41 middle peasants of Singloor, 6 households have pumpsets and 21 have Kamalai wells. One pumpset well

is shared amongst three and the other is shared among two peasants. Most of the middle peasants have their lands both in Manal Kadu and Vayal. Hence their land gets the canal and tank water in Kalam, in which once or twice watering is done from the well if necessary and the cotton and other crops in Kodai season is fully irrigated by the wells. Hence the water courses of canal and tank reaches all the lands, the well water is passed through those water-courses to the distant plots. Whereas their counterparts of Doubloor have no wells.

#### Rich Peasants

Rich peasant category of Singloor show a progress in irrigation. They all have wells too for irrigation. Out of 25, sixteen have pumpset wells and nine have Kamalai wells.

In Doubloor 2 rich peasants who are also tenants have pumpset wells (out of 6).

#### Big Landowners

All the landowners of Singloor have pumpsets and none have Kamalai. Two out of four landowners of Doubloor have pumpsets.

#### 6.3.2. Bullocks and Ploughs

Table 6.2 and 6.3 give the category-wise distribution of bullocks and ploughs in Singloor and Doubloor respectively.

## Small Peasants

In Singloor, fifteen per cent out of 42 households own bullock and plough sets. Among them 12 have a pair of bullocks and 3 have more than a pair of bullocks. Two have 4 bullocks each and one has 3 bullocks. Four households own one plough each, ten have two ploughs each and only one has 3 ploughs. None of these households possess even a single bullock. However, all the fifteen households have ploughs.

In Doubloor twelve out of 26 households own bullocks. Among them eight own a pair of bullocks each, two own four bullocks each, and two own five bullocks each. Seven households own one plough each, 4 households own two ploughs each, and one household owns 3 ploughs. One household owns a pair of bullocks with no plough, and the other owns a pair of ploughs without bullocks.

Table 6.2

Distribution of Means of Production in Singloor

Land size categories	Total number of households	Households having a pair of bullocks	Households having more than a pair of bullocks
Landless	42	1	0
0.1 - 1.0	42	12	3
1.1 - 2.5	41	23	2
2.5 - 5.0	25	12	7
5.0 +	5	0	5
Total	155	48	17

Table 6.3Distribution of Means of Production in Doubloor

Land size categories	Total number of house-holds	Households having a single bullock	Households having a pair of bullocks	Households having more than a pair of bullocks
Landless	58	1	9	4
0.0 - 1.0	26	0	8	4
1.1 - 2.5	12	1	3	2
2.6 - 5.0	6	0	1	3
5.1 +	4	0	0	4
Total	106	2	21	17

Thus 36 per cent of Singloor small peasants own bullock and plough sets, whereas 46 per cent of Doubloor small peasants have their own bullocks and ploughs.

#### Middle Peasants

In Singloor, out of 41 households, 23 own a pair of bullocks and ploughs, among which six households own a single plough each and 17 households own two ploughs each. One household has eight bullocks and four ploughs, and another household has four bullocks and four ploughs.

In Doubloor, out of twelve households, one household has a single bullock and plough, three households have two bullocks and one plough each, and two households have four bullocks and two ploughs each.

Thus 63 per cent of Singloor middle peasants own bullocks and plough sets, whereas 50 per cent of Doubloor middle peasants have their own bullocks and plough sets.

#### Rich Peasants

In Singloor, 12 households have a pair of bullocks among which 3 have one plough each and the rest have two ploughs each. Six households own two pairs of bullocks each, among which 3 have 3 ploughs, each and the rest have 2 ploughs each. Only one household has five bullocks and two ploughs.

In Doubloor, one household has a pair of bullocks and a plough, one household has four bullocks and a plough. The rest have six bullocks each and two and four ploughs respectively.

Thus 76 per cent of Singloor households own bullocks and ploughs whereas the corresponding section in Doubloor is 67 per cent.

#### Big Landowners

All the households of this category in both the villages own more than a pair of bullocks.



In Singloor, two households own four bullocks each but 2 and 4 ploughs respectively. Another two households own six bullocks each but 2 and 4 ploughs respectively. One household owns 8 bullocks and four ploughs.

In Doubloor, all the four households own 4, 6, 8 and 10 bullocks and 2, 3, 6 and 5 ploughs respectively. In addition, they also hire tractors from Sholovandan, (a neighbouring town) for ploughing and removing the corn from the straw at the time of harvest..

#### Landless

Only one out of 48 landless households of Singloor own a pair of bullocks and two ploughs.

In Doubloor, one landless household has a single bullock with a plough, and nine have a pair of bullocks, among which 8 have a single plough and one has two ploughs. Another four have 4 bullocks and 2 ploughs each.

#### 6.3.3 Cattle

Singloor households have more cattle viz. buffaloes, cows and sheep than Doubloor. Table 6.4 and 6.5 show the distribution of cattle owning households of Singloor and Doubloor respectively.

It is the middle peasants who dominate in terms of cattle owning in both the villages. The peasant category as a whole of Singloor has cattle, whereas it is rare among their

counterparts in Doubloor. The distribution of cattle is given in tables 6.4 and 6.5.

Table 6.4

Distribution of Cattle in Singloor

Land size categories (in acres)	Total number of households	Households having cattle				Total households having cattle
		Only buffaloes	Only cows	Only sheep/goats	Mixed cattle	
Landless	42	1 (1) *	0	1 (6)	0	2
0.0 - 1.00	42	3 (4)	3 (5)	3 (4)	0	9
1.1 - 2.5	41	7 (15)	9 (21)	4 (8)	2 (1+0+1)(2+0)	22
2.6 - 5.0	25	2 (5)	5 (17)	2 (52)	1 (3+2+3)	10
5.1 +	5	1 (5)	3 (10)	0	0	4
Total	155	14	20	10	3	47

\* Number in brackets shows the number of cattle.

Table 6.5Distribution of Cattle in Doubloor

Land size categories (in acres)	Total number of households	Households having cattle				Total households having cattle
		Only buffaloes	Only cows	Only sheep/goats	Mixed cattle	
Landless	58	9 (19)*	4 (11)	1 (2)	0	14
0.0 - 1.0	26	2 (4)	1 (5)	1 (2)	0	4
1.1 - 2.5	12	1 (4)	1 (1)	0	3 (1+9+3)	5
2.6 - 5.0	6	0	1 (2)	1 (3)	0	2
5.1 +	4	0	2 (3)	0	0	2
Total	106	12	9	3	3	27

\* Number in brackets shows the number of cattle.

On the one hand, it can be argued that the peasants of Singloor are more prosperous than Doubloor. On the other hand, Singloor has the infra-structure to maintain the cattle by having a variety and sufficient amount of fodder in terms of wet, semi-wet and dry crops. It has the pasture land in and around the village, unlike Doubloor, where the

cattle cannot step into the field from July to February. Moreover, Singloor lands are still manured with cowdung, which is also used as fuel for small domestic purposes. Fuel is not a problem in Singloor, since it has sufficient uncultivated areas as tank, pond, temple premise, graveyard etc., where bushes grow producing fuel. Only on special occasions such as marriage festival etc., people obtain fire wood from the city. Wood is also obtained from the Nagamalai hills and western ghats, especially along with the green leaf which is brought for base manure.

#### 6.4 Techniques of Production:

##### Small Peasant

The small peasants of Singloor apply low inputs, (i.e.) less amount of chemical fertilizer but more of traditional manure and mixing of soil. They employ less number of labourers than their counterpart of Doubloor.

Chinnaveeran is a small peasant, owning 0.5 acre in two places, 0.20 in Vayal and 0.30 in Manalkadu. He keeps his own seed of 3 marakkal (18 litres approximately), and prepares seedlings in his manalkadu irrigating it with the help of an adjacent kamalai well. The water is given free to him by a co-peasant only for seedlings. He has 3 sons and 2 daughters. All go for wage labour. He has a pair of bullocks and a plough set. His son or himself would take

the bullocks for ploughing. He does seedling, plucking, distributing etc., with the help of his daughters. He employs 6 women only for planting and gives them Rs. 15 per day. He collects the green leaf manure and the dung left by stray cattle and treats his land with it. Moreover the other family members, while returning from work, bring a handful of dung collected on the way and throw it in the land. Thus, the land always get enriched. The weeding is done in evenings, by all the three of the family. Sometimes Chinnaveeran also joins with them. The only pesticide he knows is the 'white powder' (BHC. 10%) which is available for Rs. 6 per kg. At the most he would get 2 kg. of white powder and spray it in the field. His crop is strong and least affected by diseases. Even if it is affected by diseases terribly, Chinnaveeran never goes in for new pesticides. Thus he gets 10 bags of paddy (of 100 kg. each). He sells two to three bags in the market and keeps the rest for self use. If the monsoon favours, he brings 1 kg. of ladies finger seed for Rs. 25 and sows in both the plots. The plant comes up just with a weeding. He will not purchase water if the plant is not up to the stage of flowering and he thinks it is a waste. Otherwise if the plant could grow on its own till it flowers, then he will ask for water for the crop; sometimes if the Kamalai well owner agrees, he will get free water. Otherwise he pays for 2 hours (in Manalkadu). Thus by doing non-intensive

cropping he never meets a loss in crop, instead, he always has a small but steady income.

Thus a small peasant of Singloor was not completely adopting the Green Revolution process. He in accordance with his economic condition and labour condition, does agriculture selectively and gets the entire crop as his profit. Whereas in Doubloor, the peasant is compelled to hire wage labourers because of the urgency of situation. Thus he invests more on agriculture.

A similar small peasant, Thangaraj of Doubloor, could not substitute the work with family labour. He has to plough the land by hiring two ploughs every day. If not, he will lose the path to reach his field, as the surrounding lands will be transplanted. To maintain productivity and to avoid delay in harvest, he also applies chemical fertilisers and pesticides as other peasants do. He spends Rs. 1000 for his half acre but gets only Rs. 2000 if the yield is good (20 bags), which leaves him with a profit of Rs. 1000, whereas Chinnaveeran of Singloor gets the same one thousand without investment. Thangaraj has to pay an interest of 5 per cent for 6 months, for the loan he gets locally, and has to pay another Rs. 300 extra. Whereas Chinnaveeran, does not have any loan or interest problem.

Thus a small peasant of Singloor does not easily break away from traditional agriculture, though he uses the

hybridseeds, chemical fertilizers and pesticides but only selectively. But a small peasant of Doubloor does not have much choice and is always compelled to adopt the Green Revolution, which does not suit his economic and labour conditions, but ultimately has to face less productivity.

#### Middle Peasant

The middle peasant of Singloor is in a better position than a small peasant as he owns a Kamalai well, through which he cultivates any crop he likes, without depending on others. Whereas his counterpart of Doubloor has to wait for a chance to fetch canal water from the watercourse. He has to ensure sufficient water availability before applying urea. Whereas the Singloor peasant applies urea at the right time, because he can irrigate immediately with the help of a Kamalai. Unlike the small peasant he employs wage labourers for all sorts of team work. By team work we mean any task involving more than 4 persons, such as, ploughing, bund forming by using spade, weeding etc. Still he does the task commanded for one or two persons through family labour. It increases the investment and intensifies the agriculture through various methods such as adding green leaf manure, mixing soil, applying an optimum level of urea etc., and resembles the small peasant of Singloor.

Ponnuchamy is a Singloor middle peasant who cultivates IR-20 in the 0.50 acre of Vayal and Ponni in the 1.50 acres

of Manal Kadu. He employs one more plough, along with his own and thus cuts down a part of the ploughing expenditure by Rs. 200/-. He also earns by sending his son for wage ploughing. He drops one bag of groundnut cake as manure along with cowdung and domestic wastes, which were deposited in a ditch for the full previous year. Thus he does not go for the 'Complex' - the commercially produced base manure, unlike his counterpart of Doubloor. He applies urea at marginal but sufficient levels. Thus he spends roughly one fourth of what his counterpart of Doubloor spends, but gets 30 bags of paddy for two acres, while his counterpart of Doubloor gets 35 to 40 bags. The difference is 3 to 5 bags (Rs. 400/- approximately) per acre.

Thus though ponnuchamy does not attain the highest yield, his marginal productivity is high (Rs.200/-). He minimises all the extra expenditure on fertilizer, labour hiring, pesticides etc. He says that by applying 10 bundles of leaf manure (Rs. 50/-) he gets the effect of 1 bag of urea, which costs Rs. 140/-. Whereas his counterpart of Doubloor has the view expressed that "who is ready to take the pain of collecting leaf manure and waiting for its decaying in the land. Urea is available for Rs. 140/-, and work is quickly done".

Thus a middle peasant of Doubloor, one could say, is heading towards a capitalistic path than traditional one,



though his marginal productivity goes on decreasing.

#### Rich Peasant

The rich peasants of Singloor are interested more on cash crops than paddy. Thus they are entirely different from the other peasant category of their own village, and their counterparts of Doubloor.

They cultivate sugarcane, and cotton of high yield varieties, and make sure success through their well irrigation. In order to ensure the commercial crop, most of them have also installed pumpsets.

Raman, the teacher, became the member of the Sugar factory at Alanganallur.. Earlier nobody knew about the existence of the Sugar factory. Sugarcane was cultivated from which the molasses was made in the field and sold in the local market. It is Raman who introduced the new varieties of Manjula and Vellai sathi which yield more juice than the traditional variety.

In the traditional practice the farmer had both the possibilities of higher profit and no loss. Whereas under the Sugar factory system, he will not lose but gain optimally. Raman, proved this to the rich peasants of Singloor. He became the agent to induct new members for the Sugar Factory from his village. However, the rich peasants by and large, do not like to be controlled by the sugar factory, by taking advance from them, and mortgaging the crop to them

etc. Thus a few stuck to the sugar factory system, whereas the rest turned back to the traditional variety which are less disease prone and are more resistant to heat. The new varieties are affected by the summer heat. Thus, even the rich peasants of Doubloor, though having commercialised their agriculture prefer the 'natural growth' (i.e., traditional methods) with sugarcane plantation, the wage labourers of Singloor get employment throughout the year, unlike their counterparts in Doubloor. But only the rich peasants and landlords can afford to cultivate sugarcane as it needs continuous investment for a full year with no return. It goes through a series of stages of employing mass labourers starting from ploughing, column construction, plantation, weeding thrice, fertilizer thrice, cover removal, bund farming, cutting the cane and removal of cane roots, brings out approximately Rs. 3,000 per acre, which gives an yield of 5 lorry loads, Rs. 20,000. However, we did not take into account the water charges, irrigation and other minor expenditures. Such an income is not available in paddy. Thus though rich peasants of Singloor were getting richer, it did not affect the village economic structure as there was concomitant development at the other levels too.

#### Big Landowners

To Singloor landowners, agriculture is not profitable because, his expenditure on wage labourers exceeds the income.

On the one hand he could not have an equal control over all the land and on the other on all labourers. In order to minimize the input on labourers he tended to invest more on chemical fertilizers and machines like tractor, but that had only aggravated the situation. He was the only person who applied all the chemical fertilizers that came to the market viz., Zinc sulphate, potash, and different combinations of 'complex', and the pesticides namely Roger, Endrin, Dimecron, Eccolox and DCC.N and some more varieties. But he always met with disappointing situations. Both his pumpsets had to be on always, and a set of not less than 20 labourers always work in his field. His high school educated son was always engaged in accounting for the wages and other expenditures. Yet, the rich peasants of Singloor know to do good agriculture better than the big landowners.

The landowners of Doubloor need to be mentioned specifically. They employ tractor and puddler for ploughing. They employ migrant labourers on contract basis. Unlike the big landowners of Singloor, they have their lands consolidated and cultivation is done through 'musclemen' who control the labourers through threatening, cajoling etc. The big landowners of Doubloor are in constant touch with the agricultural officials, and bribe them often, for their expert suggestions on crop. The big landowners of Doubloor have an educated youth in every family, who acts as a contact

person between the officials and landowners. And the employed ones are in such positions that are influential politically and officially, favourable conditions for agriculture.

Unlike the Singloor landowners, the Doubloor landowners scrutinize any input in agriculture to its gene. They are very cautious about the market price of paddy. All the four households are capable of keeping their paddy without selling even for one full year, till they get the highest price.

They tactfully utilise migrant and local labour in order to get maximum work done with minimum wages. However in general the wage rates are high in Doubloor than in Singloor.

## 6.5 Tenancy Pattern:

### 6.5.1 General

Both the villages differ considerably in terms of tenancy. Singloor has four tenant households (2.6 per cent), all are share croppers of small holdings, leasing in from the native landowners. There is no absentee landowner in Singloor. Doubloor has 26 tenant households (24.5 per cent) comprising a mixed category of big renters and small share croppers, all leasing in from absentee landowners.

Table 6.6Classification of Tenant-households in Singloor

Land size categories	Total number of households	Households leasing in	Households leasing out
Landless	42	2	0
0.0 - 1.0	42	2	1
1.1 - 2.5	41	0	1
2.6 - 5.0	25	0	1
5.1 +	5	0	1
Total	155	4	4

Table 6.7Classification of Tenant -households in Doubloor

Land size categories	Total number of households	Households leasing in	Households leasing out
Landless	58	15	0
0.0 - 1.0	26 + 5*	4	5
1.1 - 2.5	12 + 4*	4	4
2.6 - 5.0	6 + 3*	3	3
5.1 +	4 + 1*	0	1
Total	106	26	0
Absentee land owners	13	0	13

\* Absentee landowners.

Table 6.8Leasing Pattern in Doubloor

Those who leased out (absentee land owners)		Number of tenant house- holds					(Land size categories owned by tenants)
Land size categories	Number of persons	Land- less	0.1- 1.0	1.1- 2.5	2.6- 5.0	5.1 +	Total
0.1 - 1.0	5	5	1	0	0	0	6
1.1 - 2.5	4	5	1	1	0	0	7
2.6 - 5.0	3	2	1	2	1	0	6
5.1 +	1	3	1	1	2	0	6
Total	13	15	4	4	3	0	26

Table 6.9Tenants in Both the Villages

Type of tenants	Singloor		Doubloor	
	Number	Size of land (in acre)	Number	Size of land (in acre)
Landed Tenants	2	1.25	11	23.5
Landless Tenants	2	1.00	15	13.0
Total	4	2.25	26	36.5

Both landed tenants of Singloor own one acre each and lease in 0.50 acre and 0.75 acre. Whereas the landed tenants of Doubloor own from one to four acres, and lease in from one to eight acres. Out of the eleven Landed tenants of Doubloor eight own less than 2.5 acres and nine leased in less than 2.5 acres.

Table 6.10

Classification of Landed Tenants in Doubloor

Groups based on the size of the land leased in (in acres)	Groups based on size of the <u>land owned</u> (in acres)				Total
	1	2	3	4	
	0.1-1.0	1.1-2.5	2.6-5.0	5.1 +	
0.1 - 1.0	2	2	1	0	5
1.1 - 2.5	2	2	0	0	4
2.6 - 5.0	0	0	1	0	1
5.1 +	0	0	1	0	1
Total	4	4	3	0	11

Both the landless tenants of Singloor leased in only 0.5 acre: each, whereas their counterparts in Doubloor lease in from 0.50 acre to 1.5 acres. Eight out of fifteen landless

tenants of Doubloor leased in 0.5 acre each, and the rest leased in more than 0.5 acre.

Table 6.11

A Comparative Classification of Landless Tenants

Groups based on size of the <u>land leased in</u> (in acre )	Singloor	Doubloor
0.1 - 0.5	2	8
0.6 - 1.0	0	3
1.1 - 1.5	0	4
Total	2	15

Among the four lessors of Singloor, two are big landowners, owning five and ten acres, leased out only 0.5 acre each, to landless sharecroppers on account of using their labour to them. The third lessor is a businessman, who cultivates his own land of 1.5 acres and leased out 0.75 acre to a small peasant. The fourth one is a poor, lonely, middle aged widower who has interest in self cultivation and leased out his only 0.5 acre to a small peasant for share-cropping and lives on it. Thus none of the lessors of Singloor is an absentee landowner, and all of them did not



lease out for Kuttagai but for Pangu

In Doubloor there are 13 lessors, who leased out 37 acres altogether for different tenants under different arrangements. Three of them are natives of Doubloor but settled in cities on account of non-agricultural occupations. Two others are sons-in-law of Doubloor, who leased out the land, they got as Sridhanam (dowry) from their wives, though living in their own villages. A third set of four lessors, are businessmen who belong to the nearby villages. And the rest are of different backgrounds living in different places.

#### 6.5.2 Caste and Tenancy

Among 4 tenants of Singloor, three from Kallar caste and one from Paraiyar caste. Out of the 26 tenants of Doubloor, Kallars account 19, Konars account 3, Nayakkar and Servai account 2 each.

Table 6.12

#### Caste and Tenancy in Doubloor

Sl. No.	Castes	Total number of households	Landowning Tenants	Landless Tenants
1.	Nayakkar	5	2	0
2.	Konar	7	3	0
3.	Servai	8	0	2
4.	Kallars	80	6	13
Total		100	11	15

Thus out of the 11 landowning tenants we selected 2 and out of the landless tenants we selected 3, together making a sample of 5.

### 6.5.3 Tenancy Arrangements

There are two types of tenancy arrangements in the Piramalai Nadu, in which both of our villages are situated. They are Pangu (rent as a share of the crop) and Kuttagai (fixed rent both in kind and money). In Pangu, both the landowner and tenant share the yield in specific proportions. In Kuttagai, the tenant gives a fixed rent to the landowner, irrespective of the yield.

### 6.5.4 Tenancy arrangements under Different forms of Irrigation

#### Kamalai Irrigation

Under Aal-pangu system (AP), the means of production called Sal Thol Madu (bullocks, tin vessel and leather pipe) is owned by the landowner. The tenant merely provides his labour in lifting the water, in ploughing and other manual labour. The output is shared as 1:7.

Under Aalukku Pathi Pangu (APP), the tenant owns Sal Thol Madu with which he tills the land and lifts the water etc. The seed and manure is shared equally by the landlord and the tenant. If the landowner has no well and the tenant provides well water, then the landowner has to pay

for seed and manure. The output is shared as 1:1.

In Onnukku Rendu (OR) system the tenant puts all inputs, Sal Thol Madu, water for irrigation etc. and the landowner has to do nothing. The output is shared as 1:2.

There were also Rendukku Onnu (RO) and Moonukku Onnu (MO) systems in Kamalai irrigation. RO was followed only for paddy crop and MO was followed for non-paddy crops such as pulses, millets etc. In both the systems, the landowner provides all inputs other than Sal Thol Madu, which is provided by the tenant. Thus the arrangement differs according to the crop. Paddy is shared as two for landlord and one for tenant, whereas semi-wet crops are shared as 3 for landlord and one for tenant.

In Kuttagai form of tenure, the landowner has to do nothing in the process of cultivation. The tenant owns the Sal Thol Madu, puts all inputs, and irrigates through the well owned by the landowner. Kamalai irrigation has Payir Kuttagai (PRK) system, in which the tenant gives 5 bags of paddy (450 kg. ) as rent per acre, per crop. The rent is doubled if the tenant cultivates a Kodai crop. Pana Kuttagai (PNK) system does not exist in Kamalai irrigation.

#### Tank Irrigation

Only Pangu system is prevalent in tank irrigation, especially OR. The other forms of tenancy are rare in tank

irrigation.

### Canal Irrigation

Only the PRK and PNK systems of tenancy is practised in canal irrigation. APP is also there but in a different form. Depending upon the accessibility of irrigation (based on location) the arrangement of APP differs. In the tail-end areas, the tenant merely puts labour in the form of ploughing, weeding and irrigating, and the landowner provides seeds, manure and fertilizer. In the middle reach areas all inputs are shared by both the tenant and landowner equally. In the headreach areas the landlord merely provides fertilizer and pesticides, and the tenants have to do the rest.

Similarly PRK and PNK differ according to the location and accessibility of water. PRK varies from 6 to 8 bags of paddy (540 to 720 kgs.) for Kalam and 12 to 16 bags (830 to 1440 kgs.) for a whole year i.e., two crops. PNK varies from Rs. 3000 to Rs. 5000 per acre, per year.

### Pumpset Irrigation

The work and share of the tenant is reduced under pumpset irrigation. Since pumpset does the work of lifting water from the well, 20 per cent of tenant's share is lost in AP system. The output is shared as 1:9.

Under the APP system the share of input differs depending upon who owns the pumpset well. If the landowner owns pumpset he provides only seeds and fertilizer. And if the tenant owns the pumpset, all the inputs are shared by both equally. If both do not have pumpset and water is hired, both share the inputs including the water charge.

Under the OR system, the tenant put all the inputs, and he pays the electricity charge of pumpset in addition. In RO system the landowner puts all the inputs (including pumpset, if it is paddy crop only). For other crops, the same arrangement (RO) is called as MO.

Under PRK system, the rent is 8 bags of paddy per acre per crop, and it is doubled for a whole year. Under PNK system, the rent is Rs.3000 per year. In both cases the pumpset charges are paid by the tenant, though it belongs to the landowner.

#### 6.5.5 Duration of Tenancy

The duration of AP is a minimum of one crop and maximum of any number of years which is not predetermined. It depends upon the relationship between the landowner and the tenant. The tenant is evicted only when the crop is harvested. Similarly a tenant can leave only after the harvest.

APP is fixed on an average of 3 years. Generally the tenant is changed after 3 years. But OR and RO last long upto

5 years.

The duration of PRK is from one to three years, and in PNK it is from three to five years. In both the cases it is pre-fixed.

#### 6.5.6 Tenancy Arrangements in Singloor and Doubloor

Singloor has all the four irrigation systems in agriculture, and here due to more equal distribution of land ownership there are only two cases of AP, one APP and one OR. In Doubloor, due to its inegalitarian nature of land owning, one fourth of the households practice tenancy. There are more Kuttagai households than Pangu.

Table 6.13

Tenancy Arrangements in Both the Villages: 1982-83

Sl. No.	Tenancy arrangements	Abbreviation	Singloor	Doubloor
1.	Aal Pangu (1:7, 1:10)	AP	2	0
2.	Aalukku Pathi Pangu (1:1)	APP	1	4
3.	Onnukku Rendu (1:2)	OR	1	0
4.	Payir Kuttagai (crop rent)	PRK	0	11
5.	Pana Kuttagai (money rent)	PNK	0	6
6.	Not specified	-	0	5

Only Singloor has two AP tenants. Both of them lease in 0.5 acre each. In both cases, the duration is not specified. Both landowners are Kallars. Among the tenants one is Kallar and another is Paraiyar. In both cases, the landlords own all means of production including ploughs and bullocks. The Paraiyar tenant has to lift the water through Kamalai well. He is also employed to do extra work, in the other lands of landlord. He is given a share of 12.5 per cent of the yield. The Kallar tenant irrigates through pumpset. He gets a share of 10 per cent of the yield.

Singloor has only one APP. The landowner owns the pumpset. The size of land leased is 0.75 acres. Both the tenant and lessor are Kallars.

Doubloor has four APP. All lessors are Kallar absentee landowners, all but three of the tenants are landless Kallars. The fourth one is also a Kallar tenant who owns 1 acre and leased in 2.5 acres. Two of the landless tenants lease in one acre each and third leases in 0.5 acre. All the tenants do not own bullocks and ploughs.

OR system is practised only in Singloor that is also only in one case. Both the landowner and tenant are Kallars. The tenant is richer than the landowner. He has one acre, in which he has a pumpset and leased in 0.5 acre. Thus he irrigates the water from his well. He gets 66 per cent of

the yield and landowner gets 33 per cent.

Table 6.14

A List of Tenancy Households in Doubloor

Land categories for those who leased out	Land owned by those who leased out	Land leased out	Form of tenancy	Land owned by the tenants
0.1 - 1.0	1.00 (PK)	1.00 (PK)	APP	0.0
Total land	1.00 (PK)	1.00 (PK)	APP	0.0
5.50	1.00 (PK)	1.00 (PK)	APP	0.0
	0.50 (PK)	0.50 (PK)	PRK	1.0
	1.00 (PK)	0.50 (PK)	PRK	0.0
		0.50 (PK)	PRK	0.0
-----				
1.1 - 2.5	2.00 (PK)	2.00 (PK)	APP	1.0
	2.00 (PK)	1.50 (PK)	PRK	0.0
Total land		1.50 (PK)	PNK	0.0
7.50	1.50 (C)	1.50 (S)	PNK	0.0
	2.00 (C)	1.00 (PK)	N.A.	2.0
		0.50 (PK)	N.A.	
		0.50 (PK)	N.A.	
-----				

Contd....



(Table 6.14 contd....)

2.5 - 5.0	3.00 (PK)	1.50 (PK)	PRK	2.0
		1.50 (PK)	PNK	1.0
Total land	4.00 (Pi)	4.00 (to)	PNK	3.0
11.00	4.00 (c)	2.00 (PK)	PNK	2.0
		0.50 (PK)	N.A.	0.0
		1.50 (S)	N.A.	0.0
-----				
5.1 +	13.50 (PK)	1.00 (N)	PRK	3.0
		1.00 (N)	PRK	1.5
Total land		1.50 (PK)	PRK	0.0
13.50		0.50 (PK)	PRK	0.0
		0.50 (PK)	PRK	0.0
		1.00 (PK)	PRK	1.0
		8.00	PNK	4.0

Note: The letters in brackets indicate the castes as PK for Kallar, KO for Konar, C for Chettiyar, N for Nayakkar and Pi for Pillai. 'N.A' denotes not available.

#### 6.5.7 Sample Households

Now we explain the tenancy arrangements through cases taken from the sample households. For Singloor there are two cases, one each for AP and OR system (case numbers 1 and 2). For Doubloor there are four cases, three of PRK system (cases

3, 4 and 5) and one of PNK system (case number 6).

singloor

Case VI.1

Karuppan is a Paraiyar tenant, to a Kallar caste landowner, Lakshmanasamy, the village elite. Lakshmanasamy owns 5.5 acres, in which he leased out 0.5 acre. The land is in tail-end of the village, where the canal water could not reach. There is a old, small Kamalai well. Karuppan takes the Sal Thol Madu of Lakshmanasamy for lifting the water. He cultivates paddy in Kalam and millets in Kodai. In addition, he also works as a permanent wage labourer to Lakshmanasamy in his other lands. He guards the other fields, and other works as and when necessary. His wife is also employed in Lakshmanasamy's house, for which she is paid daily in kind.

Case VI.2

Subramani Thevar is a peasant who owns 1 acre in Manalkadu and leases in 0.5 acre from Paraman, a widower. The duration of the lease is not specified. Subramani's brother also had 1 acre of land. Subramani Thevar installed a pumpset in his Kamalai well, with which he is able to cultivate cotton in Paraman's land. He also provides water for his brother free of cost.

Subramani owns no other means of production. He employs wage labourers starting from ploughing. He cultivates paddy and cotton in both lands. He also cultivates vegetables in small patches of lands.

Apart from his own labour, he invests Rs.700 for paddy in 0.5 acre. He gets an yield of 15 bags. He gives 5 bags to Paraman. He spends Rs.800 for cotton crop and the yield is 700 kgs. worth Rs.4000. He gives Rs.1500 and keeps the rest himself.

### Doubloor

#### Case VI.3

Chinnachamy Thevar (45) is a landless Kallar tenant, on 1.5 acres, which was owned and sold out by his father in 1960. However, his father made an agreement with the landowner that Chinnasamy should be the tenant to the land. The landowner is the maman- maccunan of Chinnachamy, who lives in Sellur, Madurai.

Chinnachamy pays a rent of 40 bags of paddy every year. He cultivates two crops in a year, and gets an yield of 90 bags. In 1971, the sons of the landowner demanded a higher rent of 50 bags as they believed that the yield has gone up. However, it was fixed to 45 bags.

Case VI.4

K.V. Thevar was mortgaged his one acre to Velu Thevar for Rs.10,000/-. He became a PRK tenant to a landowner who belongs to the neighbouring village, for one acre, for an annual rent of 30 bags of paddy. He had to mortgage the land for the marriage of his two daughters. For the another daughter's marriage he cannot manage without selling or mortgaging his land. Thus sooner or later he would be reduced to a mere tenant or an agricultural labourer.

Case VI.5

Kurumba Thevar inherited tenancy right of 2 acres from his father under APP system. The landowner resides in a neighbouring village. He spent lavishly in drinking and did not look after the cultivation properly. His landowner warned him but with no results. In 1974 the landowner evicted him through employing a musclemen agent from his village. Kurumba Thevar protested by applying to the village council. In the council meeting, the landowner agreed to leave 0.5 acre under PRK to Kurumba Thevar so that his family would survive. Kurumba Thevar rejected the proposal and went to Madurai as a loadman in a rice store house. Kurumba Thevar's son (17) and other family members cultivate the 0.5 acre.

## Case VI. 6

Suriya Thevar's father has migrated in and settled as a wage labourer. Suriya Thevar became a waterman and one among the guards of Thenkarai Kalvai Sangam. He saved Rs. 1000. He married in 1970, and his father-in-law offered him Rs. 4000 as dowry. He invested the money as security and leased in 1.5 acres for 5 years. He continued to be a waterman and guard and simultaneously cultivated the land leased in. Later in 1976 the agreement was extended for another 5 years. Thus he could save an amount of Rs.20,000 which he has invested in money lending.

### 6.6 Indebtedness, Mortgaging and Sale of Land:

#### 6.6.1 Singloor

Singloor peasants by and large have taken loans from the State Bank, co-operatives and the money-lenders within the village and within kinship. An analysis of land records shows 33 cases of mortgaging called othi in Singloor, ranging from 0.08 acre to 0.60 acre. Land is very often mortgaged and remortgaged within the family as father to the son, daughter, son-in-law and daughter-in-law. Mostly land is mortgaged on account of dowry. Those who do not give Shridhanam in the form of money or jewels mortgage a part of the land to the worth of the dowry, which is cultivated

either by the mortgagee directly or by the mortgager on behalf of the mortgagee solely or on sharing. Interestingly eleven of the mortgagees are ladies in Singloor who mortgage in the lands from the father or brother. Mortgaging the land is a common phenomenon in Singloor to mobilise loan for marriage, medical treatments, to buy bullocks, or other means of production.

Othi, other than within the relations, is of two types. The mortgagee would cultivate the land and own the yield as an interest of his money. Otherwise he would let the land to be cultivated by the mortgagor and would take the interest in case or kind. In the first case the mortgagee is another peasant who does active cultivation. And in the second case, it could be a daughter or son who resides somewhere else, or a teacher or clerk who is interested in getting paddy for personal consumption.

There are two money-lenders in the village. One is the ex-president of the Panchayat, who is a big landowner, a wholesale businessman of cotton and paddy. His son is working as a clerk in the Land Development Bank. This ex-president generally lends money for cultivation of crops, marriage and medical treatments depending upon the mortgagors ability to repay. Nagar borrowed Rs. 1500 from him to purchase two bullocks, at the interest of  $\frac{1}{2}$  pack of paddy per hundred

(for the whole paddy season) which is about Rs. 50 for 6 months (8 per cent). Moreover, he can sell the paddy only to the mortgager and to nobody else. There are some more small peasants like Nagar under the clutch of the ex-president. He also lends his son's and daughter's money and keeps a separate account of the growth of their investment.

Another money-lender is Vellai, the contractor. He mainly lends money on an interest, of 5 per cent. But he is not a ready source of money. He has to be informed one week in advance if anybody wants to borrow. Since he also invests on contract, he very often goes without money.

Other than these two, there are seasonal moneylenders and petty moneylenders. These are the teachers, clerks and other business men, who lend money to a person upto Rs. 500, and recover it within 6 months. Whereas the contractor and ex-president would allow the growth of interest and would get it in the longer run.

In order to avoid getting into the hands of moneylenders, generally people help amongst relations and in response to which they get a piece of land as Othi. Here are two examples from the village.

Udaiya Thevar has three sons. Two of them are employed outside of the village. Udaiya Thevar owns 1.50 acres. In order to get cash, he mortgaged 1.00 acre for Rs. 6000 to

his sons. Thus by avoiding the mortgaging of the lands to others the land is kept intact within the family's possession. At the sametime his son's interest in agriculture is retained because as mortgagees they have invested money and inturn get paddy as interest.

In another case, Nagammal is a widow who has two sons and a daughter. She has only 0.75 acre of land. In order to get her daughter married, she mortgaged the land on the name of her daughter, and now both cultivate it jointly. Her sons earn through wage labour partly, and cultivate the land. If and when they have money they will give it to their sister and get back the right on land.

Thus Singloor has evolved a mechanism to avoid the loss of land through indebtedness.

The big farmers, get loan from State Bank, MDCC Bank, Cooperatives and Sugar cane factory, and repay the loan accordingly.

#### 6.6.2 Doubloor

An analysis of the land transfers in Doubloor for a period of 8 years from 1970 - 1978 from the land registration records available at the Sholavandan sub-Registrar's office, shows the trend of land sales and mortgaging.



Table 6.15Land Transfer in Doubloor between 1970-78

Year	Land sold (S)	Land mortgaged (M)	Land restored from mortgaging (R)
1970	(1) 1.10	(1) 0.55	
1971	(2) 0.80 (3) 0.40 (4) 0.175	(2) 0.54  (E)	
1972		(3) 0.75	
1973	(5) 0.72 (6) 0.74	(4) 0.43 (E)	
1974	(7) 1.30 (8) 0.54 (9) 0.80 (10) 0.625 (11) 0.17 (12) 0.84 (13) 0.60 (14) 0.67 (15) 0.40 (16) 0.70 (17) 0.27	(5) 0.50	(1) 1.29  (2) 1.27 (mortgaged in 1966)
1975		(6) 0.40	
1977	(18) 0.10 (19) 0.03 $\frac{1}{4}$ (20) 0.91 (21) 0.64	(7) 0.36	
1978	(22) 0.52 (23) 0.14 (24) 0.36	(8) 0.32 (E) (9) 1.00 (10) 0.56	(3) 0.40 (mortgaged in 1975)

E = Eedu.

The cases are numbered and also coded as S, M, R for the purposes of analyses. Out of the 24 sales, eight are bought by a widow, born in the big landowner's family of the village. Among the eight who sold to her, five are native peasants (S1, S2, S4, S8, and S9) and three are absentee landowners (S12, S15, and S17). Another three sales are bought by her sister, who is also settled in Doubloor itself (S13, S16, and S20). All the sellers are absentee landowners. And two sales are attributed to their brother (S6 and S18). The first seller (S6) is a businessman of adjacent village and the second one is a peasant of Doubloor. Thus the big landowners belonging to the single kin group have purchased more than half of sales in a decade. The trend of the decade shows the eviction of some of absentee landowners, who were replaced by the local landowners. Along with the absentee landowners, their tenants are also evicted by the new landowners, because they are the natives, cultivating the lands through wage labourers.

Sella Thevar, father of 4 daughters and a son, sold 0.40 acres (S3) in 1971 and further mortgaged 0.40 acre in 1975. Now he owns 2 acres of land.

Palaniyandi Thevar, a retired Railway worker, in order to bear the expenditure of his children's schooling sold 0.52 acre (S22) in 1978. At present he owns only 0.5 acre.

In 1974, Pochi Thevar in order to restore his mortgaged land of 1.27 acres (22) from the two sisters of the above mentioned family, had to sell his 0.54 acre to the widow (S8).

Thus, a trend of rich landowners becoming richer and poor becoming poorer is seen in Doubloor through the selling of land. This is because of the rising cost of agriculture (related to canal irrigation and Green Revolution) coupled with inequalitarian structure. Whereas it did not happen in Singloor, because of its multi-system of irrigation, low cost of agriculture and egalitarian structure.

And in ten cases of mortgages two are between brothers (M1, M4) and the rest are mortgaged to the people belonging to the adjacent village, of Chettiyar (the business community). This is perhaps a way of escaping from selling the land to the local landlords who generally refuse to mortgage-in. Except one or two, in all cases, the interest is given in the form of cash or kind, because the mortgagors are interested in interest and not in cultivation. In this process the peasants satisfied their economic needs without getting into the trap of selling the land.

In the case of M1, both are brothers, belonging to Konar caste. The mortgagor is the elder one, who has 6 daughters and 3 sons. The younger one, the mortgagee, has and no daughter. He had bought the land in 1979.

The elder one lost his land on account of his daughters' marriage and the younger brother gained out of it. The same elder brother is also the mortgagor in case M4. In this case the mortgagee is a different person. At present, the elder brother is landless, while rest of the Konar caste own land. In Doubloor, the mortgaging is very systematic, and the conditions are specific regarding the interest. A record of mortgaging the land reads as follows: '..... Thevar (1) for him and as guardian of his two minor children (names are given) and ..... Ammal (2) write and promise to .... Chettiyar that, for Rs. 4000, for 3 years duration 7 packs of paddy, each contains 48 measures as interest for Rs.1000 per year to a total of 28 packs will be given as 14 packs before the month of Aippasi 30th<sup>1</sup> and another 14 packs before the month of Panguni 30th<sup>2</sup>, in each of two crops, the Talaiyadi<sup>3</sup> paddy. Even if we are not able to give it, then we will get the receipt and must pay it before 3 years'.

In 1971, the Chettiyar family met a loss of crop failure, due to the scarcity of water. He had a confrontation with the Kallar landowner, by whom, he was not allowed to get

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1. Aippasi 30th = November 15th.

2. Panguni 30th = April 15th.

3. Talayadi paddy is the first beated one, which are of best corns. The second beated are secondary in quality, is called as Chootadi.

water. The Chettiyyar had a waterman who forced by the musclemen of Kallar landowner to leave the watermanship. Hence the Chettiyyar could not continue his agriculture. His school going children were threatened by the musclemen. Hence Chettiyyar wanted to leave the village. He planned to start a cloth store in Dindigul. Thus he mortgaged his land (2.5 acres) to Velu Thevar, together with his house only for Rs.20,000 (roughly  $\frac{1}{3}$  of the prevailing rate) and left the village. Thus, we find mortgaging is another way of depriving the peasants of their land in Doubloor, especially the non-Kallar peasants.

A similar experience was also met by the Nayakkar families. However they could manage the problem through their relatives. They brought their relatives from other places and managed to fetch water to the land. They bribed the musclemen of other landowners to be free from disturbances.

The Konar tenant arranges loans on low interest, Rs. 3 per cent, per month, or 6 markkals of paddy per hundred rupees, per crop, from the city people, for the small peasants. However, he can mobilise only to a maximum limit of Rs. 3,000; thus only 10 to 12 households have taken loans from him.

Benefits from new developmental processes are fairly evenly shared in Singloor, thus checking polarisation of the

community into extremes of poverty and prosperity. Having access to multiple sources of irrigation, it remains to be dominated by the middle peasant category. They are self-sufficient with regards to the means of production and are self-cultivating, thus forming a homogenous peasant community. Further, in times of need, land is purely mortgaged and released, thus helping the peasants to retain the hold on their land. Thus it prevents the process of increasing landlessness, and concentration and control of land amongst a few. The agrarian structure and trends in Doubloor, on the other hand, present a picture of capital concentration with respect to the means of production. There are sharp differences manifested between landowners on the one hand and the tenants on the other, with a continuous trend towards landlessness thus increasing the category of farm and wage labourers. There is also a distinct trend denoting the weakening of the middle peasantry, gradually. Such inferences are only strongly supported by the fact that there is increasing sale and purchase of land in Doubloor, though there is a shift from absentee landlordism to the domination of native landowners. Such a picture, then sufficiently allows us to term the agrarian structure of Singloor as a 'peasant economy' but that of Doubloor as depicting a 'capitalist economy'.

The advent of the Green Revolution has also had its effects. The Singloor cultivators are 'Enlightened Peasants'. They have adapted the new practices to their traditional non-capital intensive techniques by cultivating a cash-crop apart from paddy in Kalam. More prudent in their choice of modern techniques, they have rejected certain aspects of Green Revolution, saving the peasantry from exploitation of any kind.

Acceptance of the complete package of the Green Revolution in Doubloor has only made the situation more congenial for the landowners to appropriate surplus and destabilise the middle and small peasants. Thus it has led to sharp differences between the rich and poor, with the gap only still widening i.e., between the landowning and the landless. In conclusion, we should say that while the 'developmental process' of the peasant economy of Singloor is on the move, 'the capitalist economy' of Doubloor does not justify <sup>a similar</sup> ~~the~~ process.

## CHAPTER VII

### EDUCATION AND POLITICAL STRUCTURE

Education is considered an essential constituent of development. In Tamil Nadu, during the Congress rule headed by Kamraj Nadar, the establishment of a school in every village with free noon-meals at the Primary School level was initiated. Apart from this, the Kallar Reclamation Scheme (KRS), started by the British government in 1920s, concentrated especially on education <sup>in</sup> the Kallar dominated areas. Though the Criminal Tribes Act (CTA) was abolished after the Independence. KRS continues to be actively pursued.

As a result of the Kallar Reclamation Scheme (see chapter 2), a certain section of the Kallar community got educated and became high level administrators, police officers etc. and entered other spheres of socio-political institutions. Though a section of the Kallar community were coming forward, a vast majority remained illiterate.

The villages under the present study are Kallar dominated, and are subjected to all these changes. Both the villages have a primary school each. The High Schools and Colleges are situated in nearby towns. Hence the process of education is common to both the villages.

The present chapter deals with the social implications of education in the two villages. Here we will discuss the



following questions: Will there be a difference in terms of literacy and the type of education, between the two villages? If it is so, could it be explained in our research? What is the role of education in both the villages? Will it add another dimension to our study? Does it accelerate the different processes of development?

The data on education at four levels are presented in section 7.1. Section 7.2 deals with the distribution of education among the five land categories. We took up the question of caste and education in section 7.3 and non-agricultural occupations in 7.4 and finally discussed the political structure in both villages in section 7.5.

The data presented here are confined to only 1982 and 1983. Our unit of analysis has always been the household. An educated household is a household in which atleast one member is educated, to the level to read and write in their mother tongue (approximately upto class 5). We have data on education for all the households, and therefore, we have presented here the householdwise analysis for the universe and not for the sample households. In addition to the households, we have also mentioned corresponding population (individuals) as and when necessary.

### 7.1 Levels of Education:

Education is widely absorbed by Singloor (69 per cent households) than Doubl (39 per cent). The average size of

educated population per household is 1.46 in Singloor, whereas it is 1.20 in Doubloor. But the average educated population per educated household is 2.12 in Singloor and 3.10 in Doubloor. Thus, though the number of educated households are less, the educated population per educated household is more in Doubloor. In other words, education is concentrated among a few households in Doubloor, whereas it is more evenly distributed in Singloor. The significant features of education in general, in both the villages are given in table 7.1.

Table 7.1

Significant Features of Education in Both Villages

	Singloor	Doubloor
1. Total households	155	106
2. Educated households	107 (69%)	41 (39%)
3. Total population	713	486
4. Total educated population	227 (31.8%)	127 (26.1%)
5. Average educated per household to the entire village	1.46	1.20
6. Average educated per educated household	2.12	3.10

There are four levels of education viz., primary school, high school, undergraduation and post-graduation (college/

University). We grouped and analysed the households of both villages in terms of these levels of education as an indicator of the process of development. These four groups are defined as follows.

1. Primary school group (PS) comprise households in which, atleast one member per household entered the primary school but none had gone beyond class five. This section by and large is able to read and write in their mother tongue and to make arithmetical calculations.
2. High school group (HS), is the group comprising households in which atleast one member per household entered the high school but none had gone beyond class twelve.<sup>1</sup> This section more freely read and write in their mother tongue, read newspapers often and could express their feelings and ideas more freely than the primary school group.
3. Undergraduate group (UG), is the group comprising households in which at least one member per household entered college but none had gone beyond a Bachelor degree (B.A., B.Sc., etc.). This section by and large is able to read and write in English along with the mother tongue, and is also specialized in specific subjects. This group is the dynamic force behind the socio-political affairs of the village.

4. Finally the Post-graduate group (PG), comprises of households in which atleast one member per household reached the Masters' level (M.A., M.Sc. etc.). This section is generally involved in academic affairs, work as lecturers in colleges while some have entered administrative services.

Table 7.2

Classification of Households under Four Levels of Education

Educational groups	<u>Singloor</u>			<u>Doubloor</u>		
	No. of house- holds	Percent of the village HH	Percent of edu- cated HH	No. of house- holds	Percent of the village HH	Percent of the educated HH
1. PS group	55	35.5	51.4	12	11.3	29.3
2. HS group	38	24.5	35.5	19	17.9	46.3
3. UG group	9	5.8	8.4	8	7.5	19.5
4. PG group	5	3.2	4.7	2	1.9	4.9
Total	107	69.0	100.0	41	38.6	100.0

HH = Households,

Table 7.2 shows that, though 69 per cent of Singloor households are educated, a major section of them is still at the primary school level followed by a considerable amount at High School level, but only a few at the UG and PG levels. On the other hand, a major section of Doubloor is at the

High School level and a considerable <sup>number</sup> amount of households reached UG level. In other words, Singloor, the peasant dominated village, is predominantly primary school and High school educated, whereas Doubloor has no such predominance at any level but has more high school educated households than the other groups.

Doubloor exceeds in UG households, whereas Singloor exceeds in PG households.

Thus it is derived in general that, more number of Singloor households enter education but stop at the primary and high school levels. So the process of education is wider in Singloor. On the other hand it is monopolised by a few households, and major part of the village is still illiterate in Doubloor where a few households enter into education but reach UG levels. Such a monopoly is clearly known in terms of average educated population in the respective groups in Table 7.3.

Table 7.3The Educated Population in the Four Groups, in both the Villages

Educational groups	Singloor		Doubloor	
	Total educated population	Average Per educated household	Total educated population	Average per educated households
1. PS group	87	1.58	23	1.92
2. HS group	103	2.71	62	3.26
3. UG group	19	2.11	32	4.0
4. PG group	18	3.60	10	5.0
Total	227	2.12	127	3.10

This table shows relatively smaller differences among the average educated population under the four groups of Singloor, and bigger differences among the groups of Doubloor. In general, more population per educated household is educated in Doubloor than Singloor.

In other words, 69 per cent of Singloor households send an average of two persons out of five to the school and keep the remaining three to carry on the agricultural activities as they are predominantly middle peasant and self-cultivating households. In contrast, only 39 per cent of Doubloor households send an average of three persons out of five to the

school and keep the remaining two at home. The other 61 per cent households do not enter school at all.

The question arises at this juncture as to who exactly are privileged to attain education? Which section of the village gets educated? Which section is moderately educated? Which is more educated? Why? What is the role and process of education among different groups? How does it fit in the process of development? In order to find out this, we analysed the pattern of education under different land owning categories in the following section.

## 7.2 Education Among Five Land Categories:

### 7.2.1 The General Pattern

The question posed in the previous section was, which section of the land owning category acquire education as a part of the process of development. We assume that the process of education has a link with the pattern of landownership in both the villages. Hence an analysis of co-relation between the pattern of education and the different land categories may help us to analyse as to which section acquires what level of education, and how it uses the education? Some may use it as a means for living, some apply it to agriculture, while some others may use it as a means to acquire power.

Therefore we analysed the households under different landed categories according to the original classification we

made in chapter 6. Thus the picture emerges as follows:

Table 7.4

Pattern of Education Among the Land Categories in Both Villages

Land categories	<u>Singloor</u>			<u>Doubloor</u>		
	Total house-holds	Educated holds	Percent of educated households to the category	Total house-holds	Educated holds	Percent of educated households to the category
1. Landless	42 (27%)	20 (18.6%)	47.6	58 (54.7%)	12 (29.3%)	20.7
2. Small peasants (0.1-1.0)	42 (27%)	29 (27%)	69.0	26 (24.5%)	11 (26.8%)	42.3
3. Middle peasants (1.1-2.5)	41 (26%)	33 (31%)	80.5	12 (11.3%)	8 (19.5%)	66.7
4. Rich peasants (2.6-5.0)	25 (16%)	21 (19.6%)	84.0	6 (5.7%)	6 (14.5%)	100.0
5. Big land-owners (5.1 + )	5 (3%)	4 (3.7%)	80.0	4 (3.8%)	4 (9.7%)	100.0
Total	155 (99%)	107 (99.9%)	69.0	106 (99%)	41 (99.8%)	38.7

From this table we learn that, cent percent of the rich peasant and big landowners of Doubloor attained education



whereas 79 per cent of the landless along with 58 per cent of small peasant do not have education at all. Whereas in Singloor all the sections have more or less equal access to education.

It occurs to us to make a slight change in the categories to focus on the middle peasant category, by relaxing the criteria from 1.1 - 2.5 acres to 1.0 - 3.0 acres. Thus by lumping them together, the middle peasant category of both the villages becomes the major section in both the villages (see table 7.5). Now we call the different categories according to the new classification as follows:

1. Landless category;
2. Poor peasants who own less than one acre;
3. Middle peasants who own between one to three acres;
4. Rich peasants who own between three to five acres;
5. Big landowners who own above five acres.

Table 7.5

Pattern of Education Among the Land Categories According to  
the New Classification

Land categories	Singloor			Doubloor		
	Total house holds	Educated house-holds	Percent to the category	Total house holds	Educated house-holds	Percent to the category
1. Landless	42 (27%)	21 (20%)	50.0	58 (55%)	12 (29%)	20.7
2. Poor peasants (0.1-0.9)	23 (15%)	11 (10%)	47.8	16 (15%)	7 (17%)	43.8
3. Middle peasants (1.0-3.0)	70 (45%)	58 (54%)	82.9	27 (25%)	17 (41%)	63.0
4. Rich peasants (3.1-5.0)	15 (10%)	13 (12%)	86.7	1 (1%)	1 (2%)	100.0
5. Big land owners (5.1 & above)	5 (3%)	4 (4%)	80.0	4 (4%)	4 (10%)	100.0
Total	155	107		106	41	

The largest category of Singloor households is the middle peasant group which is also largely educated, whereas their counterpart in Singloor is neither large nor much educated. The largest category of Doubloor is the landless category but only a few are educated. Though this group is small in Singloor,

it is fairly educated. Thus we find a sharp contrast between the two villages. We have a small group of rich peasants in Singloor, educated upto 87 per cent, whereas in Doubloor we have no such group at all. There is only one household, which is educated. Four out of five big land owner households in Singloor are educated, and all the four in Doubloor in this category are educated.

Thus Singloor shows a trend of a uniform increase in educated households as the land size increases, and is more evenly distributed. Whereas in Doubloor, there is a gap between the rich and the poor. All the rich are educated, though, very few and most of the poor are uneducated.

In the following sub-section, we will see a detailed analysis of the different levels of education attained by these land categories.

### 7.2.2 Levels of education Among Land Categories

The levels of education acquired by each one of the five categories are discussed separately in this section.

Landless Category:

Table 7.6  
Education Among Landless

Levels of education	Singloor households	Doubloor households
Uneducated	21 (50%)	46 (79%)
PS educated	16 (38%)	7 (12%)
HS educated	4 (10%)	4 (7%)
UG educated	1 (2.1%)	1 (1.7%)
PG educated	0 (0%)	0 (0%)
Total	42 (27%)	58 (55%)

Illiteracy is more among Doubloor landless category than Singloor. 38 per cent of Singloor landless are primary school educated but it is only 12 per cent in Singloor. Singloor also exceeds both in High School and in College education. Thus, though this category is predominantly primary school educated in both villages, the proportion of educated is more in Singloor than Doubloor.

Poor Peasant Category:Table 7.7Education Among Poor Peasants

Level of education	Singloor households	Doubloor households
Uneducated	12 (52%)	9 (56%)
PS educated	8 (35%)	2 (13%)
HS educated	3 (13%)	4 (25%)
UG educated	0	0
PG educated	0	1 (6%)
Total	23 (15%)	16 (15%)

Illiteracy among poor peasants is slightly more in Doubloor than Singloor. While 35 per cent of the Singloor households are Primary School educated, it is only 13 per cent in Doubloor. However, Doubloor shows an increase in High School education. And out of 4, only two are Kallars and the rest are one each from the Konar and Servai castes.

The PG household of Doubloor needs a special mention here as an exception. It is a Kallar household, in which the head of the family is a Railway track supervisor, whose wife is a primary school teacher. They have two daughters and three sons. All are educated. The eldest is the daughter, a post graduate, who works as a lecturer, in Madurai city.

The next is also a daughter, a graduate, working as Midday-meals organiser in the village. The others are attending school. Due to the meagre size of land they own (0.5 acre) the family took to education and non-agricultural occupation.

Middle Peasant Category:

Table 7.8

Education Among Middle Peasants

Level of education	Singloor households	Doubloor households
Uneducated	12 (17%)	10 (37%)
PS educated	26 (37%)	3 (11%)
HS educated	24 (34%)	10 (37%)
UG educated	5 (7%)	3 (11%)
PG educated	3 (4%)	1 (4%)
Total	70 (45%)	27 (25%)

This is the largest block in Singloor and also largely educated at Primary and High school levels. 83 per cent of this category are educated in Singloor, whereas in Doubloor 63 per cent are educated. More households are High School educated. Doubloor has more college educated households than Singloor.

But in the village as a whole, this section plays a significant role in Singloor due to its numerical preponderance in terms of total as well as educated households. Its counterpart in Doubloor has no such significance.

Rich Peasant Category:

Table 7.9

Education Among Rich Peasants

Level of education	Singloor households	Doubloor households
Uneducated	2 (13.3%)	0
PS educated	4 (26.7%)	0
HS educated	6 (40%)	1 (100%)
UG educated	3 (20%)	0
PG educated	0	0
Total	15 (10%)	1 (1%)

87 per cent of Singloor rich peasant households are educated. High School educated households are more than Primary School and College educated. Their counterparts of Doubloor are numerically very weak.

Big Landowners Category:Table 7.10Education Among Big Landowners

Level of education	Singloor households	Doubloor households
Uneducated	1	0
PS educated	1	1
HS educated	1	1
UG educated	0	2
PG educated	2	0
Total	5	4

In Singloor all but one household, is educated. Two out of five went upto university level. Both are in science subjects (Maths, Physics) : one of them intends to do a Ph.D. and the other one is completing his M.Sc. Both of them prefer to take up a lecturer job.

In Doubloor, the big landowners are not interested in jobs like that of a lecturer, a teacher or a clerk. They are generally interested to have at least an UG degree as a token of their status or, to use it as a passport to enter into 'powerful jobs' such as the police force, legal practice or



government service (Revenue department, income tax etc.). They prefer to build contacts with officials of different departments through their education and occupation. In the earlier generation of the Doubloor big landowners one was a Police- Inspector and another was an advocate-cum-politician, and thus had wider contacts with politicians, court officials, police, irrigation officials, revenue and agriculture officials. The present generation aspires to get into the police force revenue office, income tax office or any other job at the District collector's office, to get the things done at the personal level. Thus their main aim of education is to control the people, land and other means of production. And the less educated ( HS and PS) of these households enter politics. Thus the big landowners of Doubloor are more deeply involved in agriculture, and take up the other occupations to fortify their lands and means of production. Marriages are still within close kins to protect the landed property, irrespective of educational status. They use the power of their occupation to keep others in control viz., landless labourers and poor peasants of the village, officials etc. Whereas Singloor villagers do not mind leaving their foothold in agriculture. They are increasingly taking non-agricultural occupations, and thus merge with the regional economy and the wider social structure.

To sum up, the landless category of Singloor is mostly educated upto the Primary school level though very few of them reached UG level. However a larger part of Doubloor landless are illiterates. The poor peasants of both villages have been educated only upto high school with an exception of only one household in Doubloor, which reached upto post-graduation. In terms of education the poor peasants are no better than the landless in Singloor, whereas, their counterparts are slightly better than the landless in Doubloor. The middle peasant category is significant in both the villages in terms of education. The middle peasants of Singloor not only form the largest block numerically but also is the largest block educated both to the primary and high school levels. Whereas in Doubloor, this category is the second largest block, numerically, and also the largest educated at the High school level. A few of the households reached upto under graduation and very few also reached post graduation. This is the single category which has educated households at all levels in both the villages. Coming to the rich peasant category, while there are fifteen households in Singloor, Doubloor has only one, which shows the absence of such a category. This is basically a High school educated category in both the villages. Finally the big landowners of Singloor, tend to go for higher education and pick up white collar jobs, whereas their counterparts of

Doubloor tend to go only upto graduation level and pick up power packed jobs.

In other words, education in Singloor is not only distributed evenly, but also has an uniform increase at various levels of education as the landsize increases, whereas in Doubloor, it is dominated by middle peasants and big landowners, leaving a major section of landless and poor peasants illiterate. The poor and middle peasants tend to go for under-graduation and post-graduation and pick up white collar jobs. Whereas the rich peasant and big landowners stop with High school and Undergraduation. They view the white collar jobs as 'useless'.

Thus education is viewed differently among different categories of a village on the one hand, and among counter-categories of both the villages. It depends upon how they use it. Is it as a means of livelihood or as a supplement to agriculture? Though we cannot have a generalized answer since different categories are involved in it differently, we can see a trend that, education in Singloor is a means of livelihood, whereas it is a supplement to agriculture in Doubloor. It is a means to get an additional income in Singloor whereas it is a means for contact and power in Doubloor. However, a certain section of Doubloor middle

### 7.3 Caste and Education:

The relationship between caste and education is to be understood to analyse the caste influence and politics in both villages. It is also an indicator of the development of a caste or a group of castes. At first we compared the Kallar caste of both villages; secondly we compared the non-Kallar castes as a group; thirdly we gave a brief account of different levels of education attained by Kallar caste, followed by different non-Kallar castes.

#### 7.3.1 Kallars

Table 7.11

Comparison of Education Among Kallar Caste in Both Villages

Sl. No.	Features	Singloor	Doubloor
1.	Total number of households	99	80
2.	Number of educated households	73 (74%)	28 (35%)
3.	Total Kallar population	456 (64%)	333 (68.5%)
4.	Educated Kallar population	167 (36.6%)	78 (23.4%)
5.	Average population per Kallar household	4.61	4.16
6.	Average educated population per Kallar household	1.69	0.98
7.	Average educated population per educated Kallar household	2.29	2.79

The educated Kallar households of Singloor are more than double the households of Doubloor (74 per cent and 35 per cent respectively). On an average per household, more Singloor Kallars are educated than Doubloor (Feature 3) but among the educated households Doubloor exceeds (Feature 4). This is due to the numerical preponderance of uneducated Kallar households in Doubloor (Table 7.12).

Table 7.12

Level of Education Among Kallar Caste in Both Villages

Level of education	Singloor households	Doubloor households
Uneducated	26 (26.3%)	52 (65%)
PS educated	34 (34.3%)	10 (12.5%)
HS educated	29 (29.3%)	9 (11.25%)
UG educated	5 (5.1%)	7 (8.75%)
PG educated	5 (5.1%)	2 (2.50%)
Total Kallar households	99	80

Most of the Singloor Kallars are educated upto Primary and High school levels, while a few reached upto UG and PG levels. Whereas in Doubloor the largest block is uneducated and the rest are more or less equally divided at all levels of education except PG. Doubloor Kallars exceed Singloor

Kallars only at the UG level.

Thus education is widely and evenly distributed among Singloor Kallar households, but narrowly and unevenly distributed in Doubloor. This shows the monopolisation of education by a few Kallar households in Doubloor.

### 7.3.2 Non-Kallars

Table 7.13

Comparison of Education Among Non-Kallars in Both Villages

Sl. No.	Features	Singloor households	Doubloor households
1.	Total number of households	56	26
2.	Number of educated households	34 (61%)	13 (50%)
3.	Total non-Kallar population	257 (36%)	153 (31.5%)
4.	Educated non-Kallar population	60 (23.3%)	49 (32%)
5.	Average population per non-Kallar household	4.59	5.88
6.	Average educated population per non-Kallar household	1.07	1.88
7.	Average educated population per educated non-Kallar household	1.69	3.77

Singloor has more non-Kallar (NK) educated households (61 per cent) than Doubloor (50 per cent). On an average per household, Doubloor exceeds Singloor (Feature 6). This difference is much more in terms of average educated population per educated household (Feature 7). This difference is due to the preponderance of higher castes (non-Kallar non-Scheduled castes) in Doubloor than Singloor (see Table 7.15).

Table 7.14

Level of Education Among Non-Kallar Castes in Both Villages

Level of education	Singloor households	Doubloor households
Uneducated	22 (39.3%)	13 (50%)
PS educated	21 (37.5%)	2 (7.7%)
HS educated	9 (16%)	10 (38.5%)
UG educated	4 (7%)	1 (3.8%)
PG educated	0	0
Total non-Kallar households	56	26

None of non-Kallar households reached the PG level. The largest block of Singloor NK belongs to PS level whereas, the largest block of Doubloor NK belongs to HS level. Singloor exceeds Doubloor in UG level.

Table 7.15Level of Education Among Different Non-Kallar Castes of Singloor

Level of education	Naidu	Vannan	Parai- yar	Pallar	Total
<u>Households</u>					
1. Total households	6	4	31	15	56
2. Educated households	5 (83%)	1 (25%)	18 (58%)	10 (67%)	34 (61%)
3. PS educated	1	1	11	8	21
4. HS educated	3	-	4	2	9
5. UG educated	1	-	3	-	4
6. PG educated	-	-	-	-	-
<u>Population</u>					
7. Total population	30	18	122	87	157
8. Educated population	15	1	25	19	60
9. Average population per household	5	4.5	4	5.8	4.3
10. Average educated population per household	2.5	0.25	0.8	1.3	1.07
11. Average educated population per educated household	3	1	1.39	1.9	1.76

3 out of 4 UG households are Paraiyars. Similarly one can see the significant trend of education of scheduled castes in other levels (PS and HS).



Table 7.16

Level of Education Among Different Non-Kallar Castes of Doubloor

Level of education	Chetti- yar	Nayak- kar	Konar	Ser- vai	Vann- an	Chakk- kiliyar	Total
<u>Households</u>							
1. Total households	1	5	7	8	1	4	26
2. Total educated	1	4	3	4	-	1	13
3. PS educated	-	1	-	-	-	1	2
4. HS educated	1	3	3	3	-	-	10
5. UG educated	-	-	-	1	-	-	.1
6. PG educated	-	-	-	-	-	-	-
<u>Population</u>							
7. Total population	8	23	55	46	6	15	153
8. Educated popula- tion	4	13	11	20	0	1	49
9. Average population per household	8	4.6	7.8	5.75	6	3.75	5.88
10. Average educated population per household	4	2.6	1.62	2.5	0	0.25	1.88
11. Average educated population per educated household	4	3.25	3.66	5.0	0	1.0	3.77

Among the only scheduled caste - Chakkiliyar only one of them is educated and that too upto class IV. To compare there were even graduates among Singloor Scheduled caste members.

None of the Vannan caste is educated. Most of the higher caste households (10) are at HS level. Only one Servai member is a graduate.

To sum up, Kallars dominate in educational attainment in both the villages. But it is more evenly distributed in Singloor than in Doubloor.

A majority of the non-Kallars of Singloor are scheduled castes (82 per cent) out of whom more than half are educated households. But the average educated population per household is very less in comparison to Kallars. However, a considerable number of households are High School and College (UG) educated. Quite a number of households are primary school educated. The caste which attained more education in the whole village is that of the Naidus (whose average land per household is higher). In Doubloor, a majority of the non-Kallars are high castes (85 per cent), out of whom more than half are educated households. Most of them are High school educated households. Only one Servai household went upto UG level. On an average per household, the Doubloor non-Kallars surpassed the Kallars (1.88 Vs. 0.98).

#### 7.4 Non Agricultural Occupations:

##### 7.4.1 Singloor

Singloor has a variety of non-agricultural occupations ranging from teachers to technicians. There are nineteen

households (Kallars 15, Paraiyar 4) from which 25 members (Kallar 20, Paraiyar 5) took to non-agricultural occupations (see Table 7.17). There are nine primary school teachers, one collage lecturer, three clerks, two peons, one co-operative society supervisor, one Roadman, one contractor, three fruit vendors and two traders. The lecturer and six teachers work outside the village. Only three teachers, businessmen and other workers commute from Singloor daily to their place of work.

Most of them hail from middle peasant category (see Table 7.17 and 7.18) who find the monthly income more permanent on the one hand and prestigious on the other. The lecturer has almost detached himself from the village, and offered his share of 0.5 acres to his brothers, orally. In other cases, the other members of the family cultivate the land.

There is only one big landowner, who also works as a teacher, for whom it is a supplementary income. However, he is more attached to agriculture like his counterpart of Doubloor (see section 6.2.2 big landowner :).

Table 7.17List of Non-agricultural Occupations in Both the Villages

Singloor			Doubloor		
Sl. No.	Name of occupation	No. of Land member owned	Sl. No.	Name of occupation	No. of Land member owned
<u>Kallars</u>			<u>Kallars</u>		
1.	Fruit vendor	1 0.50	1.	Electrician	1 0.00
2.	Teacher	1 0.75	2.	Electrician	1 0.50
	Clerk	1			
3.	Fruit vendor	1 0.75	3.	Railway worker	1
4.	Fruit vendor	1 0.90		Teacher	1
5.	Teacher	2 1.00		Lecturer	1 0.50
6.	Fitter (Pvt)	1 1.00		Mid-day meals organizer	1
7.	Co-operative society supervisor	1 1.00	4.	Cycle-repairer	1 0.75
				Driver	1
8.	Teacher	2 2.00	5.	Radio-repairer	1 1.50
9.	Lathe technician	1 2.00	6.	Administrative officer	1 2.00
10.	Teacher	2 2.00	7.	Advocate/ politician	1 13.50
11.	Lecturer	1 2.00			
	Teacher	1			
12.	Rice Trader	1 3.00			
13.	Contractor	1 3.00			
14.	Automobile spareparts trader	1 3.75			
15.	Teacher	1 5.75			

Contd....

Paraiyar

1. Peon	1	0.00
2. Road-repairer	1	0.00
3. Clerk	1	2.5
4. Peon	1	3.00
Clerk	1	

Servai

1. Clerk	1	0.50
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Total

25

Total

12

Sl. No. refers to households.

Table 7.18Distribution of Members of Non-agricultural Occupations through Different Categories

Land category	<u>Singloor</u>		<u>Doubloor</u>	
	H.H.	Persons	H.H.	Persons
Landless	2	2	1	1
Poor peasants	4	5	4	8
Middle peasants	11	16	2	2
Rich peasants	1	1	0	0
Big landowners	1	1	2	2
Total	19	25	9	13

All the three poor peasants earn by fruit-vending, and (vegetable-vending) in Madurai. Another two belong to middle and rich peasant category. The middle peasant has a

rice-shop whereas the rich peasant sells automobile spare parts with a partner for an agency at Madurai.

Thus on the one hand, the middle peasant category pick up occupations as a means of living, on the other hand a few rich peasants pick up supplementary income. With the mobilization of these sections Singloor is gradually exposed to the regional economy much more.

#### 7.4.2 Doubloor

There are three categories of non-agricultural occupations in Doubloor. First is the powerful occupations of police officer or a lawyer held by the big landowners, second are the white collar jobs and third category are the skilled-labourers, such as Radio mechanics, etc. All belong to Kallar caste.

The Police-Inspector owns 11 acres with a pumpset well. He manages the cultivation through farm labourers and irrigation through musclemen. By virtue of being born in the elite family with extensive land ownership along with the power of the job he holds, has a commanding voice over the entire village people, and on all village affairs.

The lawyer cum politician, the brother of the Police-Inspector owns 13.5 acres, and cultivates through tenants. He resides at Madurai, and looks after the city level operations of the elite group, whereas his cultivation is

supervised by his brothers in the village. A third one is a Congress secretary of the youth wing and a fourth one is a local leader of the DMK, who is also from the same elite group. Thus they have built a network of powerful contacts and relations outside the village too, through which they consolidate their own positions as well as control other affairs in the village.

The Railway worker's family is an exception from the poor peasant category who are entirely employed in white-collar jobs.

The skilled labourers are also from the poor peasant group, who work as seasonal labourers in Sholavandan.

Thus only the big landowners have outside contacts, and the middle peasants are mildly linked with the regional economy.

### 7.5 Political Structure:

Both villages, though situated under similar geographical and climatic conditions, and having similar socio-cultural characteristics took to different paths of development in agriculture after the introduction of canal irrigation, and Green Revolution. The basic reason for this is attributed to disparity in land distribution.

### 7.5.1 Singloor

In Singloor, it was noted that landownership is relatively more egalitarian. In addition to canal irrigation well irrigation is also fairly equally distributed, which facilitated the cultivation of cash crops like cotton and sugarcane along with paddy. The village is dominated by middle peasants, who synthesized selective aspects of Green Revolution alongwith the traditional indigenous practices of agriculture.

Education, widely spread in different sections of the village community, and consequently a significant adoption of non-agricultural occupation, has weakened agriculture centeredness. Thus Singloor is more open in its interaction with the wider social system, somewhat akin to the dry village Dalena studied by Epstein (1962).

Ur Periyavanga is the traditional village council consisting of the 'big men of the village'. There are five lineages amongst Kallars of Monthakutti clan and the eldest member of the five lineages is a member of Ur Periyavanga. Alongwith these five Kallars, the temple priest who is always a Naidu, and a Paraiyar together constitute the Ur Periyavanga in Singloor. This traditional council is very active in the village, taking all decisions regarding social and religious matters, solving village disputes and representing the village



as a whole while dealing with the state machinery.

Under certain circumstances, Ur Kootam (village meeting) is held on the basis of Veetukku Oru Aal (one member from each household). Decisions are arrived at democratically. However, in case of a difficult controversy the Ur Periyavanga leave the meeting place, arrive at a decision and announce it at the Ur Kootam.

The formal panchayat system stopped functioning in Tamil Nadu since 1971. However, even when it functions, it does not interfere with the decisions of Ur Periyavanga. Thus the traditional village council binds the village together, with representation and participation of different castes.

There was no major conflict in the village either among castes or among Kallar lineages, for several decades. However, there are mild quarrels at the time of elections involving educated youth who are affiliated to different political parties.

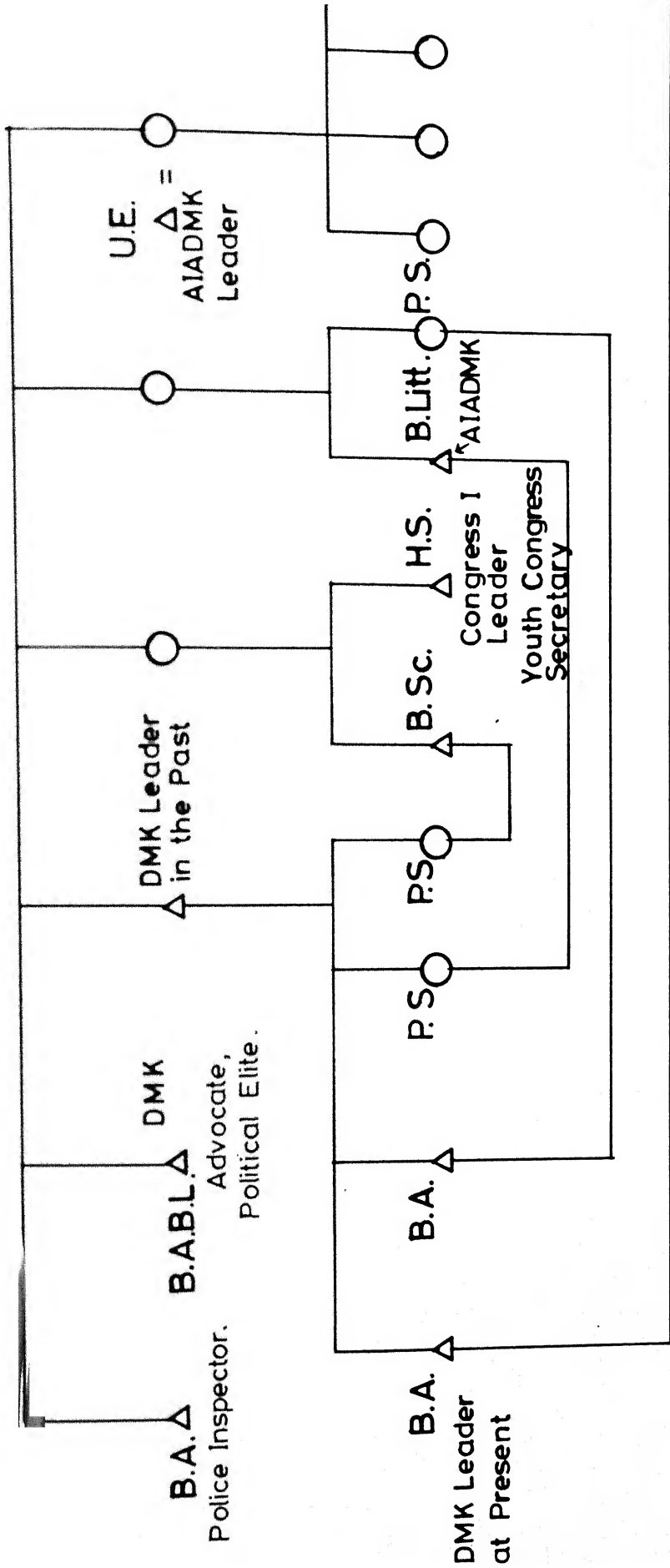
Till 1967 the village as a whole voted for Forward Block candidate. When DMK government started providing them loans for installing pumpsets, sheds etc., a considerable section of the village started voting for DMK. In Panchayat union election, they decide to vote for a particular candidate unanimously, and get a big donation from him to construct public buildings in the village.

### 7.5.2 Doubloor

In Doubloor, landowning is inegalitarian, a larger part of the village population being landless labourers and tenants. Lands are owned by a few big native landowners, closely related Pangalis and Maman-maccunans, and a few absentee landowners. Lands are irrigated only through canal except of 4 big landowners, who have their own pumpset-wells; only paddy is cultivated twice a year, which created fluctuations in the labour employment. Cultivation is by and large done through hiring wage labourers and tenants. Irrigation becomes the major problem in agriculture which was controlled by big landowners through musclemen at the distributory level and influence the officials and politicians at the canal level. Thus the small and middle peasants are affected. The middle peasants are numerically less unlike their counterpart of Singloor. Education is monopolised by big landowners and a few middle peasants, leaving a major section of the landless and poor peasants, illiterate. By virtue of taking powerful jobs, the big landowners control the entire socio-political structure in the village. The middle peasants and landless get divided into various groups such as tenants, watermen, skilled labourers and so have no organisation and unity among themselves. This facilitated the big landowners to continue their control in the village.

Village politics is dominated by a few elite families who are closely related through Pangalis and Mamman-maccunan systems. The other castes are not duly represented in the decision making. Velu Thevar, one of the big Kallar landowners (owning 12 acres with a pumpset well), was the sole decision-maker in the village till he was murdered in 1979, on account of conflict due to sharing the canal water. Later his brother, a retired Police-Inspector took over the leadership from Velu Thevar. The entire family group is strong enough to control the whole village, since they are the major employers of landless labourers, and have powerful connections with the officials at all levels. They have also a net work with political parties. The older generation prepares the younger one, to take part in the political and economic affairs. The village leaders of DMK, AIDMK and Congress- I are from the same family group (see Figure 7.1). Velu Thevar's younger brother had been candidate of DMK party in assembly election. His brother-in-law was the ex-AIDMK leader of the village. His brother's son is the emerging DMK leader. One of his sister's son is the emerging AIDMK leader and another sister's son is secretary of Congress- I (youth wing) at the district level. During the election, Velu Thevar used to decide the candidate for whom, the entire village should vote. Thus only the candidates who met him could get the

# Power Network of Elite Families in Doubloor. Education, Occupation, Kinship and Politics.



U.E. - Uneducated.

P.S. - Primary School Educated.

H.S. - High School Educated.

B.A. - Bachelor of Arts.

B.Sc. - Bachelor of Science.

B.A.B.L. - Bachelor of Arts and Bachelor of Law.

B.Litt. - Bachelor of Literature.

D.M.K. - Dravida Munnetra Kazhagam.

AIADMK. - All India Anna Dravida Munnetra

votes from Doubloor. During the last Panchayat election (around 1966), the adjacent village, with which Doubloor is associated through Panchayat, was divided into two - Chettiylars and Kallars, due to caste politics. Doubloor votes became the deciding factor. When both the parties started their campaign in Doubloor, Velu Thevar strictly ordered the Doubloor people to vote enmasse for the Kallar candidate to show the 'unity' of the village. However, the Chettiylar candidate approached the non-Kallar voters viz., Konar, Nayakkar and Servai households through the only Chettiylar family of Doubloor. Velu Thevar disturbed the Chettiylar family by blocking the watercourse through his musclemen. The Kallar candidate was even then elected. Velu Thevar continued to create problems for Chettiylar family through his musclemen and relatives. The Chettiylar's waterman was also beaten and forced to discontinue his service to the Chettiylar. The Chettiylar met with a heavy loss in agriculture and became indebted. Ultimately he had to mortgage his land of 2.5 acres along with his home for only Rs.20,000 and left the village to start a cloth store at Dindigul. There are similar experiences to the Nayakkars also but they somehow adjust with the situation. The chief of the Servai caste was reduced to a poor peasant by selling his land, for being unable to tolerate the constant troubles created by the musclemen through water theft (by making crab-

holes), crop destruction (by stray cattle etc.). Though there was a protest by the entire Servali caste, nothing had happened. However, the Konars are not affected by this process because they are being helped by their fellow-caste people who have their own pumpset-wells. Moreover they have contacts in the city through which, they get the things done. The Chakkiliyars are mere wage labourers and are mainly employed by Kallar elites, therefore, they do not oppose them.

It was Velu Thevar who first organised the people from Doubloor for Korambu Kattuthal as a part of Thenkarai Kalvai Sangam. After his death, it is done by his sons. When the water reaches the distributory, their musclemen will see that the entire lands of Velu Thevar gets irrigated first, depriving others. The musclemen are not only involved in irrigation but also function as watch dogs of the activities of the villagers. If any officer visits the village, he is duly guided to Velu Thevar's house. By chance, if somebody else is approached by the visitor, sooner or later the musclemen rushes there, and in his presence the other villager keeps quiet, out of fear. Further, an unwanted visitor is threatened through the unleashing of dogs and/or musclemen. Such a condition is not prevalent in Singloor. Any dispute is brought out to Ur Periyavanga immediately and more or less solved. Ur Periyavanga does not exist in Doubloor. So when

such a contradiction becomes unsuppressible in Doubloor, it results in murder and excommunication. That is how Velu Thevar was murdered by his own brother's son (within the caste, category and pangali) in 1979, and the murderer's family was excommunicated.

#### 7.6 Cross-cousin Marriage and Control of Land:

We have seen how Singloor maintains its solidarity and corporateness. The middle category of landowners has become significant in education and political affairs. Members of this educated group tend to marry outside the close kinship circle. Murai system of marriage is not followed very strictly. Marriage alliance is determined more by educational and occupational considerations than by landed property. In Singloor there are only four cases where both husband and wife are teachers; all of them have married outside the traditionally preferred system of marriage. The coming generation also has this tendency of marrying outside.

In Doubloor, we have two different trends. The big landowners still follow the Murai system, and tend to marry within the village. In this process, land is offered as dowry, and landed property is kept intact within close kinsmen. But in the peasant families, this system is not strictly followed.

In Singloor dowry is offered in terms of gold jewells and the amount of dowry varies according to the educational and occupational status of the bridegroom and bride. An uneducated or primary school educated bridegroom is offered two to three powns<sup>2</sup> of jewels. A teacher bridegroom is offered upto ten powns of jewels. A lecturer bridegroom is offered upto forty powns. There was a case in Chellampatti (the adjacent village), in which an Engineer bridegroom belonging to Kallar caste, was offered 125 powns (one kilogram of gold). It is told by the respondents, that the increase in the amount of dowry is of recent origin (after the introduction of canal irrigation). However, the male teachers of Singloor, who married lady teachers from outside the village, got upto 25 powns due to the occupational status of their wives. In one case the Murai Penn (preferential bride) was given monetary compensation of Rs.5,000, by the bridegroom's family for rejecting her.

Whereas in Doubloor, marriage among cross-cousins is practised to the maximum possible extent among the elite families. Murai system is strictly followed and if it is not possible due to the lack of bride or bridegrooms the

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2. One pown is equal to 8 grams of gold. The present value of a pown is Rs.1,500/-.



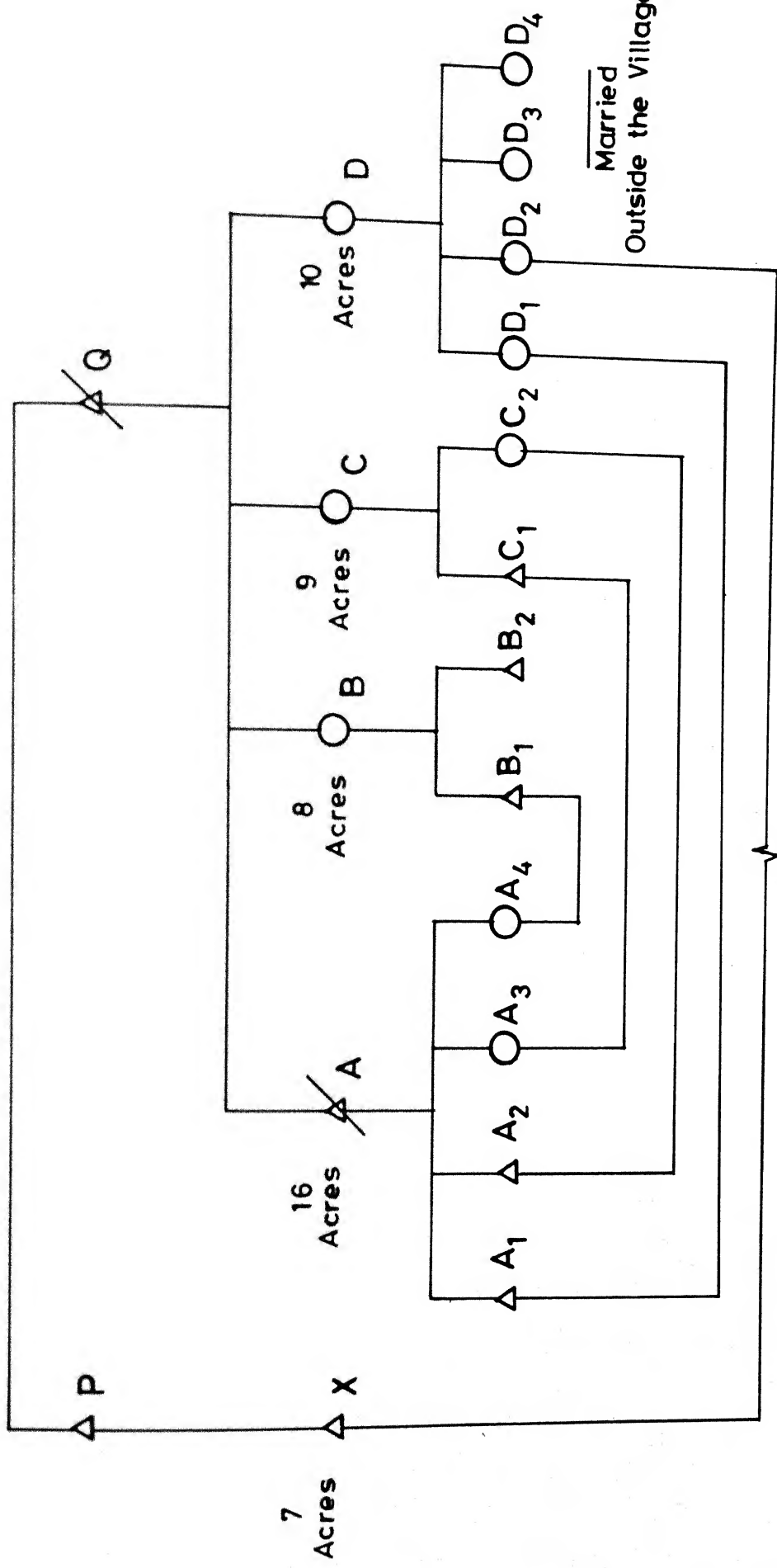
system is also extended. For instance, a girl is married to her maternal grandfather's brother's son.

The system is given in Figure 7.2 which as follows :

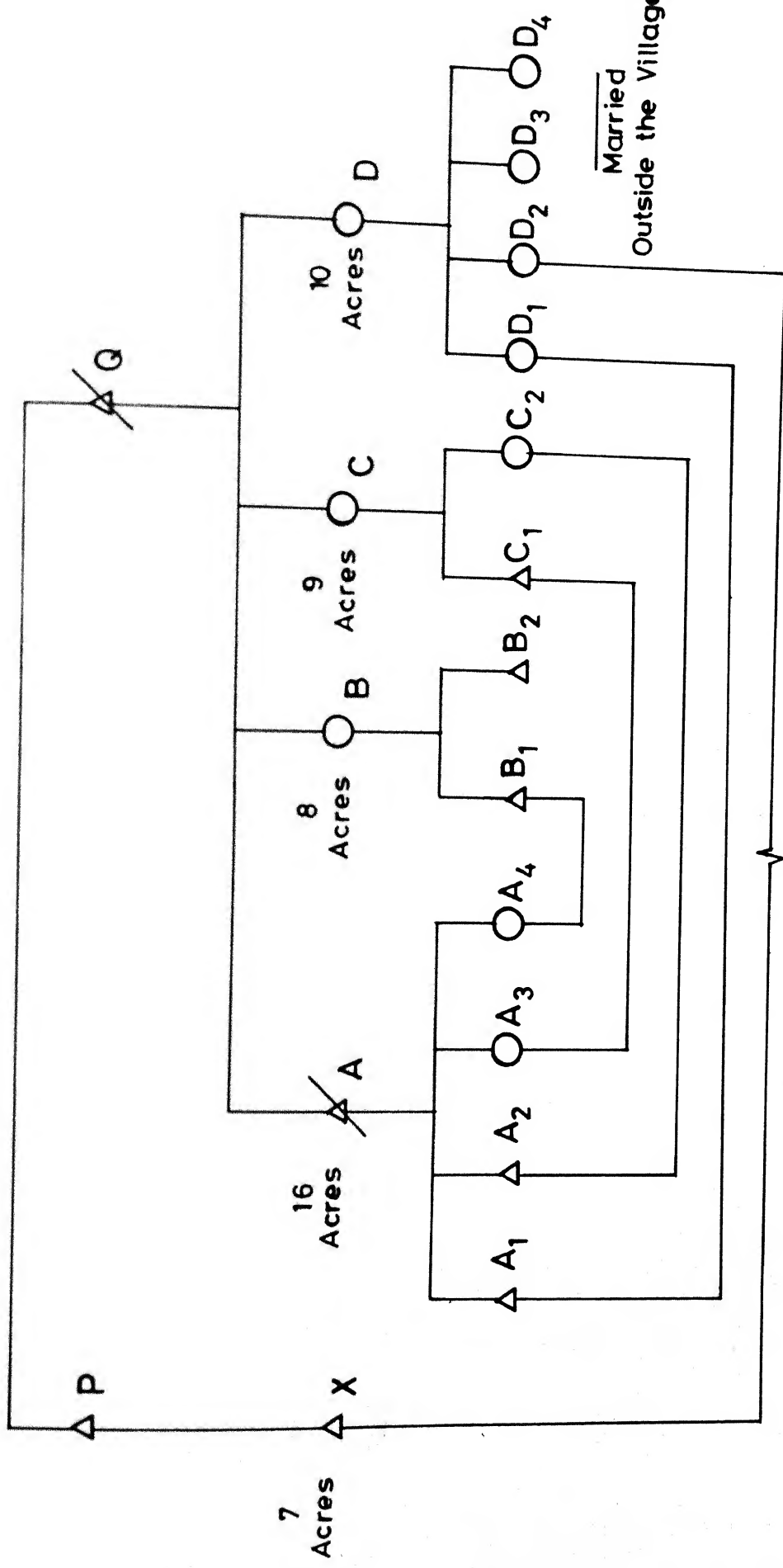
Q offered a dowry of 3 acres each to his three daughters B, C and D (see the Figure 7.2). All the daughters settled in Singloor itself and increased their size of land. His daughter D had four daughters  $D_1$ ,  $D_2$ ,  $D_3$  and  $D_4$ .  $D_1$  was married to  $A_1$  and a dowry of 4 acres land was given. Since  $C_2$  was married to  $A_2$ , the other daughters of D have no match from A's family. Hence  $D_2$  was married to X, who is of similar age as  $A_1$ .  $A_3$  was married to  $C_1$  and  $A_4$  was married  $B_1$ . Except X, all the bridegrooms in the chart were offered a land dowry of 4 acres each. X was offered only 2 acres because, he is less educated and less related than others. However, his marriage with  $D_2$  was annulled, because he murdered A due to the conflict over irrigation.  $D_3$  and  $D_4$  were married to distant relations outside the village. The dowry is 2 acres of land each. Thus their husbands became absentee landowners in Doubloor.

To sum up, the big landowners of Doubloor not only have network in education, power and politics but they also keep their landed property intact through a network of marriage relationships. Thus they maintain their hold on agriculture. Whereas we do not find this pattern among the other categories

## Marriage Network Among Elite Households of Doubloor.



# Marriage Network Among Elite Households of Doubloor .



of Doubloor. On the other hand, Singloor shows an open system of marriage, giving more consideration to education, occupation etc.. Moreover, the dowry is in the form of jewels and not land.

We have seen two different patterns, of education in both villages. In Singloor, education is more widespread in all categories. Here education is a means to earn livelihood. On the other hand in Doubloor only a few households are educated. Here education attained by big landowners, is not to earn livelihood but to control the land and others.

The egalitarian structure of land, self cultivation, availability of various sources of irrigation and the multi-crop pattern, enabled all the people of Singloor to achieve an even development. It enabled all categories of Singloor, specifically the middle peasants, to go for education and to take non-agricultural jobs. Even scheduled castes have acquired higher education.

In Doubloor an inequalitarian structure of land, cultivation through tenants, farm labourers and hired labourers, dependence on canal irrigation and the monocrop culture resulted in more pressure on land and agriculture and an economic disparity. This allows only the big landowners to get education, leaving a large section of landless

labourers and peasants illeterate. The educated big landowners pick up 'powerful jobs' and/or enter in politics, which ultimately reflect in the village social structure. Further they strengthen their power by marrying within close relations and keeping the landed property intact. Such a net work of big landowners keeps the rest of the village under constant suppression and affects the total development.

## CHAPTER VIII

### CONCLUSION

Two points have emerged out of the present study clearly. First, canal irrigation, a supposedly neutral technological input, generates different consequences, depending upon the internal social structure of the community which receives the input, while modifying the structure itself, at the same time, by imposing a certain logic of its own. Degree of corporateness in an irrigated community, therefore, results from a dynamic interaction between irrigation conditions and local social structure. Secondly, the study presents two contrasting models of development, which poses serious questions for the policy makers.

Our study of two Kallar dominated villages of Madurai district (Doubloor - canal irrigated for the two major crops since the year 1900, and Singloor - introduced to canal irrigation for a single crop only in the year 1960) reveals important differences in response to the introduction of canal irrigation, despite similar geographic, climatic and cultural conditions. During our fieldwork (1982-83) it was seen that Singloor had far more egalitarian distribution of land ownership in contrast with Doubloor. The distribution of various instruments of production was also relatively more

egalitarian than Doubloor. Even in irrigation, most of Singloor households had far greater control in contrast to Doubloor. Singloor is dominated by self-cultivating middle peasants while Doubloor is, economically as well as politically, dominated by big landowners who operate as capitalist farmers. 55 per cent of Doubloor households are landless and 25 per cent are tenants whereas the percentages for Singloor are 27 per cent and 3 per cent respectively. 69 per cent of Singloor households have at least one literate member, whereas only 39 per cent of households have a literate member in Doubloor. Following the more even distribution of education, the percentage of households with a non-agricultural occupation outside the village is significantly greater in Singloor than in Doubloor, making the latter more agriculture oriented. The traditional kinship ties are loosening up in the more open Singloor structure whereas these remain strong in Doubloor. On the other hand, the traditional egalitarian and democratic political institution of Ur-Kattuppadu is continuing in Singloor in contrast with Doubloor which is dominated completely by six rich households, knit together by close kinship ties.

Now we shall present the conclusions in the following order: (1) irrigation differential, (2) social organisation of irrigation, (3) irrigation conditions and degree of

corporateness, (4) production conditions and production relations, and (5) two models of development.

### Irrigation Differential

Canal irrigation was introduced in Doubloor right from the year 1900 for the two major crops, whereas in Singloor it was introduced in 1960 only for a single crop. Both are tail-end villages with respect to the canal system.

However, Singloor has other sources of irrigation also. A tank, which existed even prior to the introduction of canal irrigation and irrigated one third of the village land, now receives water from canal also. In addition 40 households own the traditional Kamalai systems of irrigation and 30 households own modern pumpsets. Thus there is far greater flexibility and control on irrigation in Singloor as compared to Doubloor. This is particularly significant in the context of new high yielding varieties of paddy.

### Social Organisation of Irrigation

With the longer experience of canal irrigation and that too for two crops, Doubloor had developed no other source of irrigation and is therefore totally dependent upon canal irrigation. Secondly, it also introduced a new culture of cropping pattern - only paddy in both the seasons (mono-crop), which always needs irrigation and requires more water in the transplantation, flowering and ripening seasons, which occur



simultaneously for all cultivators. These two internal factors of canal irrigation, result in water scarcity, especially at peak times. Thirdly, Doubloor is a tail-end village with respect to the number of villages ahead in the channel. This factor aggravates water scarcity still further. The first two factors cause conflict and co-operation within the village and the third factor causes co-operation within the village and with the other tail-end villages and conflict with the headreach villages. A fourth factor is ecological - level differences of land and location of land with respect to the canal and distributory - which creates conflict between those who have land at a favourable level and location, and those who have land at an unfavourable level and location. Fifth factor is man-made water scarcity by misappropriating others' water and depriving them through various means such as stealing water from fields by weakening the bunds, making carb-holes, using musclemen to obstruct water courses - all at local level, and influencing the irrigation officials, police, and politicians to get special privileges which affects others - at higher level. These five factors operate together to create water scarcity, which necessitates co-operation and conflict at different levels, depending upon the interests.

Doubloor villagers unite together as a part of Thenkarai Kalvai Sangam - the association of tail-end villages -

which is mainly operated by the big landowners. The big landowners of Doubloor take initiative in Korambu construction at the village level and, as a part of the Sangam, to involve all the cultivators of Doubloor. In this way, Doubloor has an association in relation to irrigation. But this unity lasts only till the arrival of water at the village distributory. When it is a matter of sharing water below the distributory, other factors come into play and so anarchy prevails. The big landowners appropriate a lion's share of water by manipulating through musclemen and kinship net work.

Singloor has developed other sources of irrigation which provide flexibility and more control over irrigation. It has adopted a multi-crop system, for which requirement of water is distributed all over the year. So the pressure on canal irrigation is less. However, its tail-end position does create some problems (with respect to the head reach villages), which are often solved by common meetings of representatives from Singloor and the concerned headreach village. There are no ecological (land level) defects in Singloor. And finally the internal social structure is relatively egalitarian and is democratic, which does not allow man-made scarcities. Thus village Singloor can dispense with any separate corporate irrigation organisation. Irrigation conflicts are treated as a part of village affairs and are solved through Ur Periyavanga

(village elders) meeting. Such a system is not found in Doubloor.

### Irrigation Conditions and Degree of Corporateness

Both Singloor and Doubloor are tail-end villages. According to Wade's analysis (1979) both are likely to have irrigation organisations. Although he does not take into account the possibility of combining other sources of irrigation with canal irrigation, his 'scarcity' condition would imply higher degree of corporateness in Doubloor social structure as compared to Singloor. However this is not borne out by our findings.

The social structure in Singloor is relatively more egalitarian on the basis of land and other means of production. The village is numerically dominated by self-cultivating middle peasants having similar interests in cultivation. Thus the village is under the control of a big group which is neither poor nor rich. Its voice is the major voice in common village meetings. Its objective conditions exclude the interest of suppressing and exploiting others. Therefore democracy prevails in decision-making in the village.

In Doubloor, the social structure is very inegalitarian on the basis of land and other means of production. Numerically, a very few - closely interrelated (through kinship) big landowners dominate the village economically as well as

politically. This group is highly educated in contrast to the rest, and has powerful links with irrigation officials, agricultural experts, police officials, and politicians. There is limited interaction among people of various categories. The village affairs are generally decided by this elite group. There is no traditional panchayat system as in Singloor. Those who attempt to oppose are forced to obey through the musclemen, by creating problems in irrigation. This creates lot of conflicts among individuals despite the fact that there is an association of irrigation. These conflicts are 'resolved' mostly by force.

Thus we find in Singloor a relatively democratic social structure dominated by middle peasant and greater degree of corporateness in contrast to Doubloor where 'authoritarianism' is the rule.

#### Production Conditions and Production Relations

Singloor is dominated by self-cultivating middle peasants who do not go for capital intensive cultivation. Various traditional practices like applying natural manures, mixing soils, sheep-penning, leaving the land fallow and crop rotation, enrich the soil, which eliminate the necessity of expensive modern fertilizers. These peasants have their inherited knowledge of traditional practices such as applying turmeric water, neem cakes, etc. as pesticides. These practices,

cheap and outside the domain of 'experts', are adopted by most of the farmers. Only a few selected features of Green Revolution are adopted and combined with the traditional pattern of cultivation, making it suitable for middle peasants. With the simultaneous development of all farmers the egalitarianism is maintained. Thus sale of land is a rare phenomenon in Singloor. Most of the households are educated and a significant number of people have entered non-agricultural occupations.

Since all are landowning cultivators, tenancy is not prevalent much. There are a very few tenants but these are exceptional cases. None of them is capitalist tenant nor poor landowners.

The indigenous knowledge about cultivation generates less dependence on outside experts (like agricultural office) without any serious compromise with productivity. Since most of the households practise self-cultivation, they do not require much wage labour, except in peak seasons. However the rich peasants and big landowners employ wage labourers. Demand for labour is more even throughout the year and wages are stable. Singloor has no farm labourers, musclemen or watermen, unlike Doubloor.

Doubloor agriculture is totally dependent on canal irrigation. The complete package of Green Revolution has been

adopted. Capital investment is made on new high yield varieties, chemical fertilizers and pesticides, and mechanisation. This form of agriculture is suitable for rich peasants and capitalist farmers but not for poor and small peasants. The peasants have lost their indigenous practices of cultivation, become indebted and increasingly sell their lands to big landowners. Thus the new production conditions and relations are leading to proletarianization. Tenancy is relatively high. Thus the village shows capitalist farming on the one hand and pauperisation on the other, which leads to increase in the gap between rich and poor. The land is increasingly losing its fertility, because it is not regularly enriched as in Singloor. This results in greater investment on chemical fertilizers and pesticides. The labour supply is more and the demand is uneven. The means of production are unequally distributed caste-wise as well as class-wise and the uncertainty of irrigation together give more power to the 'haves'.

#### Two Models of Development:

Two distinct patterns of development are discernible in the present study. One, capitalist agriculture with its typical contradictions, as reported in a large number of studies of the impact of Green Revolution, especially from canal irrigated regions. It shows increasing concentration

land at one end and mounting number of landless labourers at the other, with disintegration of the middle peasantry. And, two, an enlightened peasant economy, based on predominantly self-cultivating middle peasants, widely educated, actively making choices in a politically democratic environment. Thus the two villages under study here have emerged as two distinct 'models' of development — ideologically different.

They demonstrate (1) an urgent need for land reforms in favour of middle peasants and (2) need for a creative search for flexible indigenous solutions to problems of agricultural production, combining traditional and modern practices to suit the requirements of a middle peasant. The present study has convincingly shown that an enlightened peasant economy can survive and flourish, even though only in isolated pockets, and capitalist model of agricultural production is not inevitable everywhere. More studies are required to understand the nature of conditions that make a peasant economy survive under the present socio-economic and political set-up. On the other hand, conscious human intervention is required to alter the present socio-economic and political set-up which favours the capitalist model.

## GLOSSARY

Aal Pangu	:	System of tenancy under which the tenant provides only labour, and the landowner provides all other inputs; the labourer's share of the produce varies from 1/7 to 1/10 of the total yield.
Aalukku Pathi Pangu	:	Half share - each to the tenant and the landowner.
Adi	:	Fourth month of Tamil calendar year roughly July 15 - August 15.
Ambalakarars	:	Village heads
Avarai	:	A plant used as a green manure
Iravai Petti	:	Swing basket - operated by two men to lift water from sub-surface level to the surface level.
Kalam	:	The monsoon season
Kamalai	:	A traditional mode of lift irrigation from well with a pair of bullocks, a tin vessel, and a leather pipe.
Kani	:	A measure of land, equal to 0.60 acres.
Kanganam	:	Tank maintenance committee
Kanmai	:	Tank
Kattai Vetti	:	A traditional village out-caste who digs the land to bury the corpse.
Kaval	:	The action of policing or watching
Kavalkarar	:	Policeman or watchman
Kida-Vettuthal	:	Sacrificing the he-goat
Kodai	:	The summer season
Kolinji	:	Plant used as a green manure



Korambu	:	An artificial bund formed to block the flow of water and divert it into a different channel.
Korambu Kattuthal:		Construction of <u>Korambu</u>
Kuruni	:	A volume measure of grains; equal to four padis (approximately 6 litres). It is also called as a <u>marakkal</u> .
Kuttagai	:	Fixed-rent
Madaiyans	:	Sluice-guards to guard the tank-bund and water (usually from Pallar caste).
Maman-maccunan	:	Maternal cross-cousins
Manal Kadu	:	Literally sandy field, a part of Singloor land.
Murai	:	Literally 'turn'; used as a name for 'preferential marriage'.
Mureikku Pangalis:		Secondary Pangalis.
Muthamai	:	Due respect given to an individual or family in social and religious affairs
Nadus	:	Endogamous groups based on territorial origin
Nanjai Payir	:	Wet crop
Nanjai Ulavu	:	Wet-ploughing (for paddy crop)
Nanjai	:	Wet land
Othi	:	Land-mortgage
Palai	:	A vast tract of land like a desert which has no irrigation sources
Pana Kuttagai	:	Fixed rent in cash
Pangalis	:	All male members in the exogamous groups
Pangu	:	Rent as a share of the crop

Payir Kuttagai	:	Fixed rent in kind.
Pown	:	Literally, gold (one pown = 8 gms of gold)
Punjai	:	Dry land
Punjai Payir	:	Dry crop
Punjai Ulavu	:	Dry ploughing
Sahalapadis	:	Any two male members who married the daughters of the same house or co-brothers
Sal Thol Maḍu	:	A set of things used in Kamalai irrigation: Sal = tin vessel Thol = leather pipe and Maḍu = bullocks
Sangams	:	Associations
Sridhanam	:	Bride wealth
Thai	:	Tenth month of Tamil calender year (roughly January 14 - February 15).
Thalai	:	A specific plant which grows in riversides
Thoombu	:	Small pipe
Thottam	:	Semi-wet land with well irrigation
Thotti	:	A common village servant usually acting as a messenger on the occasions of birth, death and marriage ceremonies
Tuppukuli	:	'the clue-hire' for finding out the stolen property
Ur-Kattuppaḍu	:	Village solidarity reflected in the norms and decisions of the traditional panchayat
Ur-Koottam	:	The general body meeting in the village
Ur-Periyavanga	:	A group of village elders who are the chief decision-makers
Vamadai	:	Field inlet

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## APPENDIX

### The Traditional Mode of Agriculture: Through an Analysis of Proverbs

During fieldwork, collection of data pertaining to the traditional mode of agriculture, became a problem as there were no records. Respondents too faced difficulties in remembering the facts of the past. An alternate way was to recall some proverbs that were orally inherited. We collected such proverbs during our field work, mostly from Singloor. These were then classified under headings such as ploughing, rain, manures, broadcasting and transplantation, irrigation, pesticides, and soil.

#### A. Ploughing (Ulavu):

An advance ploughing is done in the month of Chitrai (April-May), so that the soil looses its heat. This is called as Chitrai Ulavu. This is considered as the best for the Kalam crop.

(1) Chitrai Puluthi Methavum Nandru

(ploughing in the month of Chitrai is very good)

(2) Chitrai Matha Puluthi Patharai Mathu Thangam

(ploughing during the month of Chitrai (April-May) is comparable to 24 carat gold, i.e., the best).

Similarly the month of 'Thai' (Jan.-Feb.) is considered very good for the kodai crop.

(3) Thai Ulavu Ai Yattu Kidai

(ploughing in Thai is equal to five times the penning of a flock of sheep).

Penning of a flock of sheep is an effective form of enriching the land. Hundreds of sheep are encaged in the land during the nights, through which the land gets the direct excretions of the sheep. This strengthens the growth of the crop.

In contrast, the whole month of Karthigai (November 15-December 15) and the full moon days are forbidden from ploughing the land.

(4) Karthigai Ulavu Kadugu Milahukkum Kanathu

(ploughing in the month of Karthigai is not advised because the yield will be so poor that it will not be sufficient to purchase even mustard or pepper).

(5) Poornam Thannil Pulayanum Ulan

(Even an idiot does not till his land on fullmoon days)

Ploughing is generally of 2 types based on the land and crop. Nanjai Ulavu stands for ploughing the wetlands especially for paddy crop and Punjai Ulavu stands for ploughing the semi-wet as well as dry lands for crops like millets, cereals and vegetables. Both ploughs differ only in the plough-share (the iron part of plough which

scratches the earth). The punjai plough share is longer but narrow, whereas the Nanjai plough-share is shorter but wider. By and large, all the peasants have both the ploughs still in Singloor, whereas, there is no Punjai plough in Doubloor.

A piece of land is ploughed twice at a stretch (lengthwise and breadthwise). This is called as 'Oru Adi' (Single stretch). Four plough sets complete Oru Adi of an acre in a day in general, but it depends on the type of soil, and the essential depth of the furrows. A ploughing is always preferred to be deeper than to be wider.

(6) Ahala Uluvathai Vida Ala Uluvathe Mel

(Deep ploughing is better than shallow ploughing)

Hired ploughmen do not plough deeply. The reason is, such a ploughing exhaust the energy of men and bullocks very quickly; secondly they cannot cover much area. Only those who do self-ploughing can plough as much deeper as they want. In fact, Singloor is full of such self-ploughing households. Only then the weeds will be removed from the land. Consequently it enables a better yield.

(7) Pullara Uluthal Nellara Vilayum

(A ploughing that removes as much grass, (weeds) brings that much paddy).

(8) Nanjaikku Elulavu, Punjaikku Nalulavu

(Seven ploughings to Nanjai, and four ploughings to Punjai)  
A Nanjai land needs seven Adis (stretches) of ploughing  
whereas a punjai land needs only four.

(9) Nalla Parambu Nalu Ulavukku Samam

(A good levelling is equal to four ploughings)  
The levelling is supposed to be equivalent to four  
ploughings.

Further, the Nanjai land is levelled twice whereas the  
punjai land is not levelled.

B. Rain (Malai):

Since agriculture was dependent on monsoons, (before the  
introduction of canal irrigation) people had a knowledge about  
the possibilities of rain.

(10) Malai Semmegam Malaikku Athigaram

(Appearance of red clouds in the evenings is a good sign  
of rain).

In contrast to this, the appearance of rainbow  
in Kumbhalagna, Mars and in the month of Ani (approximately  
June 16 - July 15) means no rain.

(11) Kudathile Koradu pottal Kambile Kaluthai Meyum

(Rainbow at Kudam or Kumbha Lagna - Kumbha lagna occurs  
between the Tamil Months Masi and Panguni, from mid-  
February to mid-March - will lead to the situation that the

donkeys will be let in the Kambu crop (pearl millet) to eat). It means that the crop will be a failure for want of rain.

Another proverb that gives the same idea is:

(12) Ani Adiyil Ana Sevvayil Kombile Koradu-pottal, Kambile Kaluthai Meyum

(13) Ani Matham Koradu pottal Adutha Matham Malai illai

(The appearance of Rainbow in the month of Ani means it will not be rain in the next month)

Prospects of rain are identified with the direction from which the pre-monsoon winds blow. The west and north winds are good signs of rain and the south wind is supposed to have the opposite effect.

(14) Kachhanaukku Machhan Malai

(West wind is followed by best rain)

(15) Vadanthai Adithal Thodaranthu Malai

Thenral Adithal Theripattu pohum

(North wind brings continuous rain whereas south wind brings nothing)

(16) Mari Thenral Adithal

Mattai vitru Attai Vangu

(If south wind blows during the rainy season there is no hope of rain. Hence it is better to sell one's bullocks and purchase sheep).

This implies that bullocks will suffer for want of grass and fodder; and will also become useless as there can be no cultivation in the absence of rain.

In such a situation, sheep will be more beneficial because of its commercial value.

Even the simultaneous lightnings from East and west assure a good rain, that all the pits and ponds would be filled sufficiently.

- (17) Elamum Kongaiyum Ethirthu Minninal  
Pallathu Attai Thookki Mettila Podu

(If one perceives simultaneous lightning in the east and west, then one can anticipate heavy rains. It is therefore advised to remove the sheep from the pits and take them to safe, upper levels to prevent them from drowning.)

- (18) Erumbu Muttai Kondu Thittai Erinal Malai Peyyum

(If the ants are seen carrying their eggs and shifting to some other place, rain is sure).

- (19) Thavalai Kathinal Thane Malai

(If the frog croaks, it will rain)

- (20) Thattan Thala Kattatha Malai

(If the dragon flies fly near to the earth, there will be heavy rain).

- (21) Andhi Esal poothal

Adai Malaikku Latchanam

(Similarly if the termite flies called Esal fly in the evenings, it is a sure sign of rain).

C. Manure (Uram):

In the traditional mode of agriculture, various types of manures are applied. Domestic wastes, excretion of animals, green leaf manures and oil-cakes were applied to raise the productivity of soil. Most of the households kept cattle. A common village cowherd was employed to take animals to graze, and was paid in cash and kind. Those farmers who had more than five cattle or sheep join together as a group and penned their cattle together in turn, in their fields at night. Apart from this, they also pen the cattle of nomadic cow-herds who pass the village from time to time.

(22) Atteru Ayvarudam Nalla Matteru Maruvarudam

(Sheep-dung gives benefit with in the same year, whereas cow-dung has effect only in the following years).

Sheep-dung is considered more effective than cow-dung.

(23) Oru Kala Viraiyadi Uvattai Matrída Aru pala Veppam punnakkai Vithaiyudan Idu

(To change the nature of salty soil, of the size of one 'Kalam' seed- sowable area, apply 6 'palams' of neem cake with the seed).

Neem cake was applied to change the salty nature of soil.



3. Broadcasting and Transplantation (Vithappu and Nadavu):

In the past, all the dry crops (punjai payir- millets, cereals etc.) including some varieties of paddy were broadcasted, depending upon the monsoon.

The months of chitrai (approximately mid-April to Mid-May), Adi (approximately mid-July to mid-August), and purattasi (approximately mid-September to mid-October), were auspicious for broadcasting the seeds.

(24) Chitrai Machathil Seerai Vithaithal Patharai Mathupasum on Vilaiyum

(If the seeds are properly broadcasted in the month of chitrai, the crop is guaranteed like 24 carat gold).

(25) Adi Pattam Thedi Vithai

(Broadcast the seeds in the month of Adi).

(26) Adiyi Aranival odiya Karumbum  
Aru nankil petra puthalvanum  
purattasiyil Natta Nadavum  
Periyargal Vaitha Dhanam

(The following is a treasure left by the forefathers: the sugarcane which has grown up to the length of a lizard's tail in the month of Ani; the son who born when his father is 24 years of age and the paddy that is transplanted in the month of Purattasi).

(27) Karthihai Piranthai Kai Natrai Erinthu Vidu

(Throw away the seedlings if the month of Karthihai has already started. The month Karthigai, which comes

next to Purattasi is not good for the transplantation of paddy.

#### E. Irrigation (Neer):

Since water has always been scarce, its economic use was carefully followed in the past. Even the water loss, due to grown grass in the water course, was avoided. Especially in Singloor, when the tank was filled with water and ready for irrigation, the first task carried out by the people was to clean the watercourses, by removing the grass.

#### (28) Mudappullum Mukkurini Thanneerai Cherukkum

(Even a folded grass in the watercourse keeps away  
Three Kurunis of water - approximately 20 litres).

#### (29) Neerai Chinthinaiyo Erai Chinthinaiyo

(If you waste the water, you will waste the agricultural life).

Wastage of water was condemned as wastage of livelihood.

#### (30) Era Mettukku Neer Paichathe

(Do not try to irrigate an upper level land where the water cannot go or flow).

#### (31) Thanillatha Vellamaiyum Thanulatha Nilamum Tharisu

(The non-self-cultivated and non-self-ploughed land becomes barren).

Self-cultivation was cherished as a value in agriculture.

(32) Puthu Kandu Kinaru Vettu

(Dig a well where puthu - termatorium - is found).

There was supposed to be a simple technique to select a place to dig a well. The place where the termites live -- termatorium- is the ideal place to look for digging a well.

F. Soil and Pesticides (Mann and Marundhu):

The common dreaded pest of the past was the caterpillar (leaf eating worms). To kill them a powder was prepared out of dried neem leaves and turmeric and was sprinkled. A second practice was to collect the caterpillars by attracting them through two specific branches of trees 'Usul' and 'Vanni' are the two trees which are more attractive to the caterpillars. Hence the green branches of these trees were cut off and kept near the affected crops. The caterpillars start accumulating near the branches and then are removed or burnt. Sufficient intervals (fallow) between crops were also followed to kill the germs or pest.

The combination of soils are known by different names, and are mixed together. The infertile white soil is called as pottal in which 'Pirandai' (a kind of creeper plant), neem leaves, sugarcane leaves and sesame plants were dumped and puddled to make the land fertile.

Green leaf manure was mixed with soil. Collection of green leaf manure is an important job of labourers and peasants at the time of paddy plantation. Various types of leaves were brought from the western ghats and Nagamalai hills, through head loads and cart loads.

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